BC Hydro
Power smart

July 31, 2020

Mr. David M. Morton
Chair and CEO
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Morton:

RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Site C Clean Energy Project
PUBLIC Annual Report No. 4 and Quarterly Progress Report No 18, and Quarterly Progress Report No. 19

BC Hydro has voluntarily provided the BCUC with quarterly reports since the start of construction to be transparent about Site C's progress, accomplishments and challenges.

Today we are filing two reports: the 2019 Site C Annual Report No. 4, and Quarterly Progress Report No. 19.

As we did in 2018, we have combined the 2019 annual report and the quarterly progress report into one document for Annual Report No. 4, covering the period January 1 to December 31, 2019, including the quarterly results for the quarter ending December 31, 2019. The filing of Annual Report No. 4 was delayed due to Site C project team priorities shifting in recent months to actively respond to and manage the COVID-19 global pandemic.

We are also filing Quarterly Progress Report No. 19, covering the period January 1 to March 31, 2020. This report addresses some of the early impacts COVID-19 had on the project prior to March 31. Those impacts continue today and will do so for the foreseeable future.

Although the pandemic began at the end of the latest reporting period, it quickly became apparent that COVID-19 would result in significant impacts to the Site C project.

On March 18, 2020, BC Hydro announced it was substantially reducing certain work activities on the project in response to the increasing escalation of provincial measures to manage the COVID-19 pandemic.

Work at the dam site was scaled back to only those activities that were critical to achieve river diversion and essential services, such as site safety and security and environmental protection. This decision resulted in a reduction of people staying at site by about 50 per cent.

Work continued as planned in off-site project areas (i.e., Highway 29 realignment, transmission line and reservoir clearing work), as most of these workers don't stay in the camp and can more easily practice physical distancing on their work sites.

On May 14, 2020, BC Hydro announced it would begin safely increasing construction activities at the dam site in a gradual phased approach. The phased approach will see the number of workers staying at the worker accommodation increase over the summer and fall of 2020, as work continues to ramp up on the dam site. BC Hydro continues to closely monitor the situation so that any issues can be quickly addressed and compliance with current provincial guidance is maintained.

Prior to the escalation of the COVID-19 pandemic, the project remained on schedule for the first generating unit to go into service in late 2023 and a final in-service date in 2024.

While we remain on schedule to achieve river diversion in 2020, there is uncertainty with the project's schedule and in-service date. This is primarily due to our ability to re-start and accelerate work that was halted due to the pandemic.

BC Hydro has begun the process to re-baseline the project to determine the impact the COVID-19 pandemic has had on the project's schedule and budget.

Since the current project budget was approved in February 2018, and prior to scaling back work due to COVID-19, we acknowledge the project was already managing significant financial pressures due to:

- amendments to the main civil works contract;
- increased costs associated with reservoir clearing, transmission line construction and highway re- alignment work;
- additional labour resource requirements; and
- First Nations treaty infringement claims and an injunction application.

In addition to these financial pressures mentioned above, a project risk has materialized on the right bank. Towards the end of December 2019, investigations and analysis of geological mapping and monitoring activities completed during construction identified that some foundation enhancements would be required to increase the stability below the powerhouse, spillway and future dam core areas.

By the end of the March 31 reporting period, we had learned more about these geological challenges. Based on further engineering analysis of the proposed mitigation measures, the foundation enhancement costs are anticipated to be more substantial than initially expected in January.

BC Hydro continues to work with the independent Site C Technical Advisory Board and the Project Assurance Board to determine the appropriate enhancement measures. The estimated cost and schedule impacts will be better understood once the enhancement measures are selected.

Pandemic-related delays will present further cost pressures on the budget. As the evolution of the pandemic is uncertain and the date of resolution is unknown, various cost and schedule impact scenarios continue to be assessed and refined as part of the re-baselining process.

In these reports, we acknowledge specific areas of concern that have impacted the overall health of the project. For these reasons, in our Project Status Dashboard, we classified the overall health of the project in both reports as "red", or having serious concerns, specifically regarding schedule, scope and budget.

As noted earlier, work to re-baseline the project is underway to determine the impacts of COVID-19. Once this process is completed, we will provide the Commission an update later this fall.

Yours sincerely,

Chris O'Riley
President and Chief Executive Officer
BC Hydro

Enclosure

BC Hydro
Power smart

Site C Clean Energy Project

Quarterly Progress Report No. 19

F2020 Fourth Quarter

January 2020 to March 2020

PUBLIC

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1 Project Status – January to March 2020

This Quarterly Progress Report No. 19 (Report No. 19) provides information concerning the Site C Clean Energy Project (Project) covering the period from January 1, 2020 to March 31, 2020. During the reporting period, the COVID-19 pandemic escalated considerably. BC Hydro has been monitoring COVID-19 closely since January 2020 and has taken actions as the situation evolved.

On March 18, 2020, BC Hydro started to modify its work activities on the Project in response to the increasing escalation of the COVID-19 pandemic. BC Hydro worked with Project contractors and unions to safely scale back certain construction activities at the Project dam site and focus only on essential work, critical milestones and off dam site activities. The Project continues to prioritize work required to achieve river diversion in fall 2020. Other essential work such as keeping the site safe and secure and meeting the Project's regulatory and environmental commitments continue as planned. Work activities in off dam site project areas are less impacted as most of these workers do not stay in the worker accommodation camp. While the Project remains on schedule to achieve river diversion in September 2020, there is uncertainty with the project’s schedule and in-service date. This is primarily due to our ability to re-start and accelerate work that was halted due to the pandemic.

BC Hydro continues to work closely with the Northern Health Authority to align practices with evolving federal and provincial health and safety and industry practice guidelines to ensure project work areas are safe for workers and the broader community.

Updates on the impact of the COVID-19 pandemic on the Project and actions taken by BC Hydro are discussed in more detail throughout Quarterly Progress Report No 19.

In addition, at the end of December 2019, a previously identified project geological risk materialized on the right bank when investigations and analysis of geological mapping and monitoring activities completed during construction identified that some foundation enhancements would be required to increase the stability below the powerhouse, spillway and future dam core areas. These investigations and analysis were reported to the Project Assurance Board in early January 2020.

BC Hydro continues to work with the independent Site C Technical Advisory Board and the Project Assurance Board to determine the appropriate enhancement measures. The estimated cost and schedule impacts will be better understood once the enhancement measures are selected.

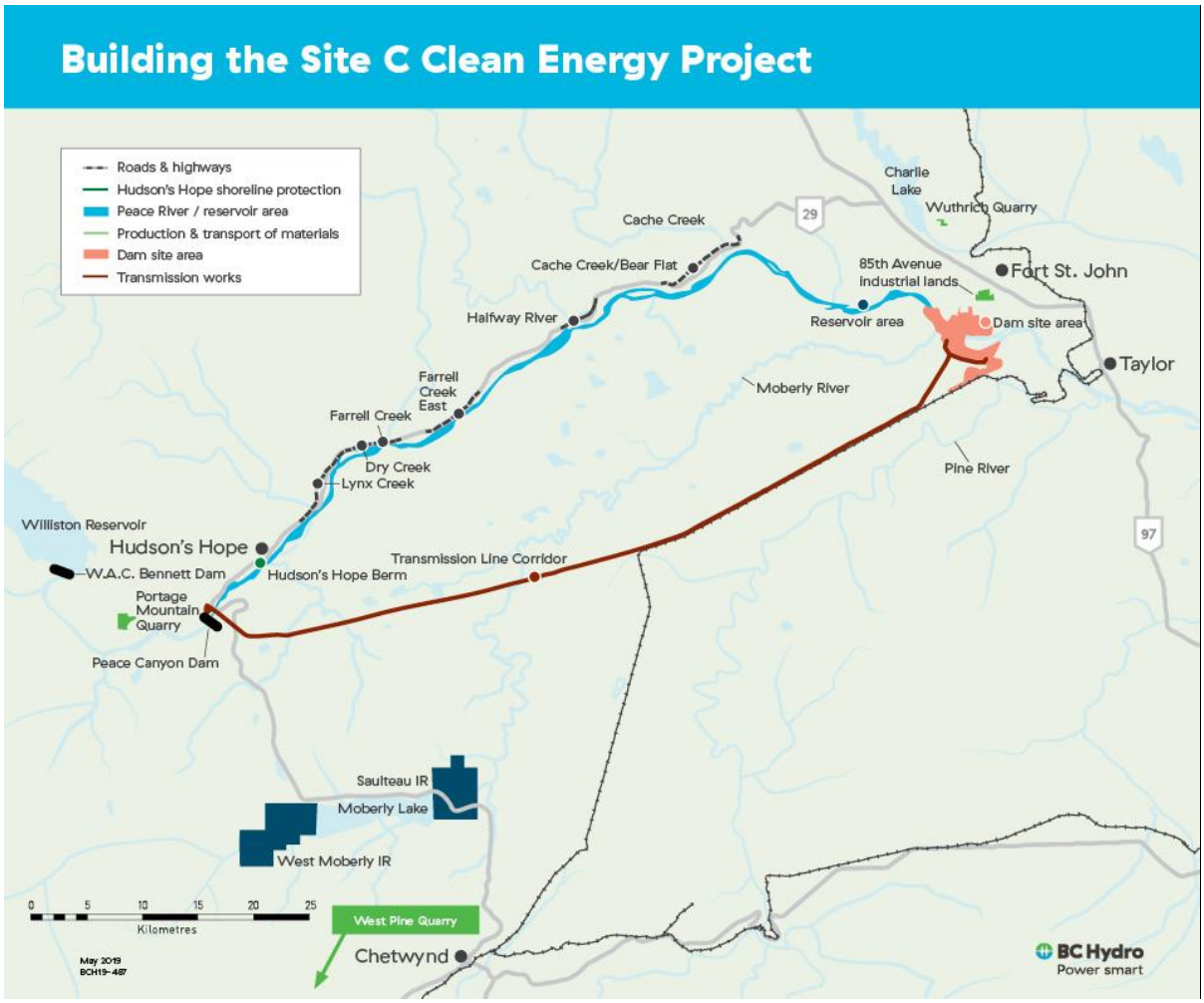
1.1 Overview and General Project Status

Construction began on July 27, 2015 and is ongoing. Since the commencement of construction, the following work has been completed:

- Site preparation, including on-site access roads;
- Clearing of the left and right banks at the dam site and clearing of the lower reservoir area;
- Cofferdams on the left and right banks of the river;
- Construction of the worker accommodation lodge and Peace River construction bridge;
- Powerhouse excavation, and placement of 414,000 cubic metres of roller-compacted concrete in the powerhouse buttress;
- Spillways excavation, and the placement of 586,000 cubic metres of roller-compacted concrete in the spillways buttress;
- Construction of dam site access public roads;
- Construction of the Site C viewpoint;

- Excavation of the diversion tunnel inlet (upstream) and outlet (downstream) portals, allowing for the commencement of diversion tunnel excavations;
- Excavation of the right bank drainage tunnel, which will be used to monitor and drain the remaining excavations for the spillway and dam buttresses and will eventually be connected to services within the powerhouse;
- Completion of the bulk excavation of the two river diversion tunnels, which will be used to reroute a short section of the Peace River to allow for the construction of the earthfill dam;
- Clearing activities in the lower reservoir;
- Completion of the Peace Canyon 500 kV gas-insulated switchgear expansion to enable connection of Site C to the BC Hydro electrical system;
- Fish habitat enhancements downstream of the dam site; and
- The completion of 50 affordable housing units in Fort St. John.

Figure 1 Site C Project Components



Significant Project updates that occurred from January 1, 2020 to March 31, 2020, include the following. These, and other, Project updates are detailed in Report No 19:

- In late December 2019, as a result of ongoing geological investigations and analysis of mapping and monitoring activities during construction, a previously identified project geological risk materialized when BC Hydro identified that additional scope and design enhancements would be required to further enhance the foundations of the structures on the right bank, including the

powerhouse, spillways and earthfill dam. This information was shared with the Project Assurance Board in early January 2020. BC Hydro continues to work with the independent Site C Technical Advisory Board and the Project Assurance Board to determine the appropriate enhancement measures. The estimated cost and schedule impacts will be better understood once the enhancement measures are selected.

- Project scope, schedule and cost are under pressure due to the requirement to implement these enhancements. Refer to sections 1.1.1.1 and 1.1.2 for further information.
- In January 2020, BC Hydro began monitoring COVID-19 closely and implemented measures to ensure worker health and safety of the work as the situation evolved. Refer to section 1.2 for more information.
- In February 2020, concrete placements were completed for the second of two inlet structures that will house the mechanical gates at the inlet to the diversion tunnels. Refer to section 1.1.1.1 for more information.
- In February 2020, diversion Tunnel No. 1 outlet structural concrete was completed and all structural concrete for the outlet structures for Tunnel No. 1 is now complete. Refer to section 1.1.1.1 for more information.
- In February 2020, tower installation was also completed on the eastern portion of the first of two new 75-kilometre-long transmission lines being built between Site C and Peace Canyon generating station, with 121 of 200 towers raised. Refer to section 1.1.1.1 for more information.
- On March 6, 2020, a contract amendment was executed to the main civil works contract, retroactive to December 23, 2019, increasing the value of the contract by up to $332 million over the duration of the contract. Please refer to sections 1.1.1.1 and 1.8.13.1 for further information.

- On March 18, 2020, work activities were modified on the Project in response to the increasing escalation of the COVID-19 pandemic. BC Hydro worked with Project contractors and unions to safely scale back certain construction activities at the dam site in order to focus on essential work and critical milestones, while off dam site activities were able to continue. On the dam site, the Project prioritized work required to achieve river diversion in fall 2020. Other essential work such as keeping the site safe and secure and meeting the Project's regulatory and environmental commitments also continued as planned.
- In March 2020, work progressed in the diversion tunnels with the completion of the final concrete placement on diversion Tunnel No. 1 concrete liner. In total, 56 placements were constructed using travelling Aluma slip forms. The gate guide installation for Tunnel No. 1 inlet structure is complete and installation of the first gate guide panel has commenced. The concrete placements for the diversion Tunnel No. 2 inlet structure are complete, and as of March 31, 2020, four placements remained to be placed for the outlet portal structure. Refer to section 1.1.1.1 for further information.
- In March 2020, work was completed on the debris management structure across the Moberly River. All 44 steel piles filled with reinforced concrete were installed on the Moberly River. These piles are in addition to debris booms that are planned for the Moberly and Peace Rivers and will protect the dam site from debris until the reservoir is filled. Refer to section 1.1.1.1 for more information.
- As of March 31, 2020, all required conditions and submissions for permits and government agency approvals have been met in accordance with the schedule and requirements of the conditions.
- A second grant intake of $250,000 was held from December 1, 2019 to January 30, 2020 on the $20 million BC Hydro Peace Agricultural

Compensation Fund, and nine Peace Region agricultural projects received approximately $190,000 in funding.

- As of March 31, 2020, approximately $400 million in Site C procurement opportunities have been awarded to Indigenous designated companies.

A dashboard based on the Project's status as of March 31, 2020 is provided in Table 1 below. The Project team, with direction from the Project Assurance Board, is committed to delivering the Project without compromising on safety, scope, and quality.

In the quarter January to March 2020, the COVID-19 pandemic has had a material impact on safety, cost and schedule for the Project. While diversion milestones have been impacted, proceeding with river diversion in 2020 remains on track. There is uncertainty with the project's schedule and in-service date. This is primarily due to our ability to re-start and accelerate work that was halted due to the pandemic. As the evolution of the COVID-19 pandemic is uncertain and the date of resolution is unknown, various cost and schedule impact scenarios continue to be assessed and refined.

Prior to the escalation of the COVID-19 pandemic and since the current Project budget was approved in February 2018, the Project was managing significant financial pressures, as described in the previous report, due to: additional scope and design enhancements to the foundations of the structures on the right bank; an increased contract amendment to the main civil works contract; additional labour resource requirements; First Nations treaty infringement claims and an injunction application; and increased costs associated with reservoir clearing, transmission line construction and highway re-alignment work.

As of March 31, 2020, BC Hydro had drawn approximately 76 per cent of Project contingency and continues to monitor and mitigate cost pressures. BC Hydro expects to request a draw on the Project reserve in fall 2020, as needed.

Table 1 Project Status Dashboard

● On Target ● Moderate Issues ● At Risk

Status as of:		March 2020
Overall Project Health	●	Overall Project health is red due to significant schedule, scope and cost pressures. In the quarter January to March 2020, the COVID-19 pandemic escalated in British Columbia and has had a material impact on safety, cost and schedule for the Project. On March 18, 2020, BC Hydro scaled back work on the dam site to focus on essential work and critical milestones to achieve river diversion in fall 2020. While diversion milestones have been impacted, proceeding with river diversion in 2020 remains on track. Due to the COVID-19 pandemic and the need to scale back work on the dam site on March 18, 2020 to focus on essential work and critical milestones to achieve river diversion in fall 2020, the Project's first power and in-service date will be impacted. Schedule risk has also increased due to the requirement to implement enhancements to the foundations for the structures on the right bank. Project scope and cost are also under pressure due to the requirement to implement enhancements to the foundations of the structures on the right bank.
Safety Overall Project	●	The intense pace of work continued across most Project work fronts, including during challenging winter conditions. With only a minimal downturn in winter activity, Project safety incidents trended up. BC Hydro began monitoring COVID-19 in January 2020 and was able to move early and quickly to implement many health and safety measures to protect employees, workers and members of the public. Safety resources are focused on ensuring public safety and security, as well as worker safety for river diversion.
Scope Overall Project	●	At the end of December 2019, a previously identified project geological risk materialized on the right bank when investigations and analysis of geological mapping and monitoring activities during construction identified the need for additional scope to enhance the foundations of the structures on the right bank including the powerhouse, spillway and future dam core areas. This information was shared with the Project Assurance Board in early January 2020. BC Hydro continues to work with the independent Site C Technical Advisory Board and the Project Assurance Board to determine the appropriate enhancement measures.
Schedule Overall Project	●	Due to the COVID-19 pandemic and the need to scale back work on the dam site on March 18, 2020 to focus on essential work and critical milestones to achieve river diversion in fall 2020, the Project's first power and in-service date will be impacted. Schedule risk has also increased due to the requirement to implement enhancements to the foundations for the structures on the right bank.
Cost Overall Project	●	In addition to the significant cost pressures identified to December 2019, the Project is facing incremental cost pressures due to the COVID-19 pandemic, with work being scaled back at the dam site, uncertainties to first power and the Project in-service date, and the need to implement foundation enhancements to structures on the right bank. As the evolution of the COVID-19 pandemic is uncertain and the date of resolution is unknown, the cost impact cannot be accurately calculated at this time. Based on further engineering analysis of mitigation measures, the foundation enhancement costs are expected to be more substantial than initially expected in January. Work continues to assess, monitor and manage cost pressures to the extent possible.
Quality Overall Project	●	BC Hydro is continuing to assess the impact of travel restrictions and access to vendor facilities due to the COVID-19 pandemic. The overall quality rating for the Project continues to be good during the reporting period, indicating that the work generally conforms to the requirements of the drawings and specifications. The main civil works diversion tunnels concrete linings continue to be an area of focus as the repair of surface defects is underway and the mapping of thermal cracks continues in advance of implementation of the repairs.

Status as of:		March 2020
Regulatory, Permits and Tenures Overall Project	●	Permits are on track and are meeting schedule requirements. To date, the Project has obtained 77 per cent of its major required authorizations and the remaining authorizations are anticipated to be received as required to meet the overall Project schedule needs. Environmental Assessment Certificate Amendment approvals are progressing well, with all requested amendments approved to date. Wildlife installations are proceeding. Regulatory agencies continue to work on permit and amendment applications, despite COVID-19 related work restrictions, and while some delays are expected, we believe they will continue to meet the overall Project schedule needs.
Environment Overall Project	●	Environment Canada initiated an investigation on October 10, 2018 regarding a low pH water release event in September 2018. BC Hydro has subsequently increased the system capacity along with other actions to reduce the potential of a reoccurrence. This investigation is still ongoing. BC Hydro's next submission to Environment Canada to support the investigation is expected by April 2020. Focus remains on spring freshet preparation and finalizing care of water infrastructure, wildlife attractant mitigation and managing over greasing and leaking equipment. Despite COVID-19 related work reductions at site, all contractors are required to retain crews to provide water management and other environmental compliance related activities.
Procurement Overall Project	●	Procurement timelines for the balance of plant contract have been extended to respond to concerns on the impact of the COVID-19 pandemic raised by proponents. The financial submission deadline for balance of plant was extended, which will delay the contract award date past June 2020. All remaining major Highway 29 procurements, including for segments at Cache Creek, Farrell Creek and Lynx Creek, may experience some delay. A direct award contract for the Hudson's Hope Shoreline Protection work was cancelled. A public request for Proposals will be posted in May 2020 with an anticipated award in August 2020.
Indigenous Relations Overall Project	●	Six of ten agreements are fully executed and in implementation. West Moberly First Nations withdrew from confidential discussions to seek alternatives to litigation related to Site C in August 2019 and filed an amended Notice of Civil Claim in September 2019. Discussions with Prophet River First Nation remain open.
Litigation Overall Project	●	West Moberly First Nations filed an amended Notice of Civil Claim in September 2019, which, among other things, expands their original treaty infringement action, shifting the focus to all three Peace River facilities, not just Site C, and their alleged cumulative impacts. Preparation continues for the trial of this claim, expected to occur sometime in 2022. Confidential discussions with Prophet River First Nation to seek alternatives to its litigation related to Site C, filed in January 2018, remain open.
Stakeholder Engagement Overall Project	●	BC Hydro continues to work with the communities, regional district and stakeholder groups on the implementation of various community agreements. In response to the COVID-19 pandemic, BC Hydro has implemented regular email updates to Local Government and Indigenous representatives as well as periodic update teleconferences.

1.1 Major Accomplishments, Work Completed, Key Decisions and Key Issues

1.1.1 Construction

Refer to Appendix G for the full construction schedule.

1.1.1.1 Main Civil Works

The scope of the main civil works contract includes the construction of the following major components:

- Diversion works, including two concrete-lined, 10.8 metre diameter tunnels. Tunnel No. 1 is 700 metres in length and Tunnel No. 2 is 790 metres in length;
- Diversion tunnel inlet and outlet portals, and approach channels;
- Excavation and bank stabilization;
- Relocation of surplus excavated material (including management of discharges);
- Dams and cofferdams (including a zoned earth embankment dam 1,050 metres long and 60 metres above the present riverbed, and stage 1 and 2 cofferdams);
- Roller-compacted concrete (including a buttress approximately 800 metres long made up of approximately 1.7 million cubic metres of concrete); and
- Haul roads.

On March 6, 2020, a contract amendment was executed to the main civil works contract that is retroactive to December 23, 2019 resulting in an increase in the contract value of up to $332 million over the duration of the contract, including investments in equipment to reduce the schedule risk for dam construction and a series of performance-based at-risk incentives for the contractor with the objective of maintaining schedule for diversion and first power.

While the amendment supports the Project's ability to achieve river diversion in 2020, it also contributes to the significant cost pressures currently being managed.

During the reporting period, significant progress was achieved on the main civil works construction activities required prior to river diversion. Due to the COVID-19 pandemic, as of March 18, 2020, BC Hydro has not progressed non-critical work, including construction of the dam and preparatory work for placement of the right bank dam roller-compacted concrete, while continuing to progress critical activities related to achieving river diversion in fall 2020. Essential services continued, including care of water, repairs to the right bank drainage tunnel and left bank water control measures. The Project remains on track to meet river diversion in September 2020.

Left Bank

In preparation for river diversion and construction of the earthfill dam, the significant work activities on the left bank are to:

- Stabilize the slope with a mass excavation associated with construction of the dam (complete);
- Stabilize the diversion tunnel inlet and outlet portals (complete);
- Excavate two diversion tunnels (complete);
- Construct concrete diversion tunnel linings (in progress);
- Construct inlet and outlet structures at the ends of the diversion tunnels to house the hydraulic gates (in progress); and
- Construct the approach channels (in progress).

The activities currently underway or completed as of March 31, 2020 on the left bank include:

Left Bank Drainage Adit

Approximately 59.5 m of 454 m of the left bank drainage adit is complete. As a result of the ramp down of non-essential and non-diversion work areas due to the COVID-19 pandemic, work on the left bank drainage adit was temporarily suspended as of March 18, 2020.

Diversion Facilities

Diversion Tunnel No. 1 outlet structural concrete was completed in February 2020 and all structural concrete for Tunnel No. 1 inlet and outlet structures are now complete. The contractor completed the final concrete placement on the main Diversion Tunnel No. 1 concrete liner on March 2, 2020. In total, 56 placements were completed using the travelling Aluma slip forms.

The concrete placements for the Diversion Tunnel No. 2 inlet structure are complete, and as of March 31, 2020, four placements remained to be placed for the outlet portal structure. Fifty-six of 64 placements of the Diversion Tunnel No. 2 main liner were completed in the reporting period.

Excavation and benching of the two diversion tunnels are complete. The achievement of this milestone reduced the uncertainty related to the geological conditions around the tunnels.

As of March 31, 2020, the gate guide installation for the Tunnel No. 1 inlet structure is complete and installation of the first gate guide panel is in progress. The Tunnel No. 2 inlet structure gate guide installation work continues, working towards welding the liner plates in place. The sill beam has been installed and secondary concrete placed. In the outlet structures, stop log guide installation is underway for both tunnels.

Inside both tunnels, a short section of concrete placement work remains near the upstream entrances, which is completed using different, purpose-built formwork. As of March 31, 2020:

- Tunnel No. 1 initial liner section is partially complete, with the first of eight concrete placements completed, and all reinforcement is complete.
- Tunnel No. 2 initial liner section is complete; the only remaining placements are for the orifice plate sections (there are four in Tunnel No. 2, and no orifice plates in Tunnel No. 1).

Temporary Fish Passage

The Temporary Fish Passage Facility is a trap and haul facility located on the right bank of the Peace River diversion tunnel outlet channel and will provide safe and efficient fish passage from the outlet channel to upstream release locations during construction of the Project. The construction scope for the Temporary Fish Passage Facility consists of a sorting facility, pump station, pool modules (fish ladder) and entrance pool, including concrete placements, mechanical works, electrical works and commissioning. Construction progress is on track and the facility is on target to be commissioned in July 2020.

Core Trench Excavation (Left Bank)

Prior to March 18, 2020, the left bank core trench bulk excavation was progressing well, with rock slope protection on the east and west slopes of the left abutment nearing completion. Due to the COVID-19 pandemic, work on the core trench excavations has been halted as the focus of activities have been redirected to diversion focused work. All open drill holes have been grouted and the work areas have been closed.

Right Bank

The right bank scope of work includes the excavation of the powerhouse, spillways and dam, and placing roller-compacted concrete for the foundations to support the powerhouse, dam and spillway structures.

The activities currently underway or completed as of March 31, 2020 on the right bank include:

Right Bank Drainage Tunnel

Remediation work is continuing in the right bank drainage tunnel. In 2019, some shotcrete on the wall of the tunnel was damaged which has limited access into the tunnel. Workers are advancing to areas in need of repair and as remediation is completed and the final shotcrete layer is placed in the tunnel, any non-functioning instruments are repaired. During this reporting period, approximately 50 per cent of the tunnel has been cleared for access and 35 per cent has been completed with the final shotcrete layer.

Aggregate Production

Aggregate production continued through 2019 with the contractor producing the planned stockpile in advance of the 2020 construction season. Aggregate production stopped in November 2019 for winter and was scheduled to recommence in spring 2020. Due to the COVID-19 pandemic, work will remain halted until the restriction is rescinded.

Core Trench Excavation (Right Bank)

The right bank dam core trench and dam buttress excavations were completed in November 2019 and consolidation and curtain grouting of the right bank was completed in the lower core trench area in March 2020. Grouting was progressing well up the right bank slope prior to the work being halted when the focus of

activities was redirected to diversion focused work due to the COVID-19 pandemic. Work will recommence once COVID-19 restrictions are lifted.

Spillway Roller-Compacted Concrete (Upper Spillway and Dam/Core Buttress)

The placements of roller-compacted concrete for the spillways was completed in 2019.

Roller-compacted concrete for the dam/core buttress was expected to be complete in fall 2020. Due to the COVID-19 pandemic, this work has not yet commenced.

Foundation Enhancements

Geotechnical issues on work fronts other than the left bank diversion tunnels has always been an identified project risk, and this risk has materialized on the right bank.

At the end of December 2019, investigations and analysis of geological mapping and monitoring activities completed during construction identified that some foundation enhancements would be required to increase the stability below the powerhouse, spillway and future dam core areas. These investigations and analysis were reported to the Project Assurance Board in early January 2020.

BC Hydro continues to work with the independent Site C Technical Advisory Board and the Project Assurance Board to determine the appropriate enhancement measures. The estimated cost and schedule impacts will be better understood once the enhancement measures are selected in the coming months.

River Diversion

Due to the escalation of the COVID-19 pandemic, certain construction activities have been scaled back on the Project, with the exception of activities related to meeting river diversion. The Project continues to prioritize work and continues to progress with the preparations for diverting the Peace River in September 2020. As a part of

this work, plans for operational and construction management, dam safety, emergency management, public safety, site safety, environmental, and commissioning have been developed. As part of the lead up to diversion, engagement with key stakeholders and Indigenous groups has been initiated and will continue in 2020.

Debris Management

The design and procurement of debris retention structures on the Moberly and Peace Rivers has commenced. Works include piles on the Moberly River and debris booms on the Moberly and Peace Rivers. These structures provide coverage for all head pond elevations to capture debris and prevent them from entering the diversion tunnels. The piles on the Moberly River are complete, and construction is underway on the three debris booms.

Piles located on the Moberly River

- The construction of 44 steel, concrete-reinforced piles on the Moberly River was completed in March 2020 by the generating station and spillways contractor. The piles are required to support management of debris while the river is diverted and to collect debris when the headpond elevations are low.

Peace River Debris Boom located furthest upstream of the dam site

- The construction of the first debris boom on the Peace River is being constructed by the generating station and spillways contractor. This boom is located furthest upstream of the dam site. Access and anchor construction on the Peace River is ongoing and is expected to continue until June 2020. Final installation of this debris boom is forecast to be complete in June 2020 at which point boat traffic on the Peace River at Site C will be closed.

Moberly River and Peace River Debris Booms located closest to the dam site

- The debris boom on the Moberly River and the second debris boom on the Peace River are located closest to the dam site. These booms are being constructed by the main civil works contractor and are in final permitting stages. Construction of the roads to access the debris booms is underway.

Other Areas

Conveyor Belt System

The construction of a five-kilometre long electric conveyor belt system, which runs from the 85th Avenue Industrial Lands to the dam site, was completed and commissioned in 2019. The main civil works contractor has proposed plans to upgrade the conveyor system feeders to increase the efficiency. Operation and upgrade of the conveyor system has been placed on hold due to the COVID-19 pandemic.

In-River Work

When the river is diverted in 2020, upstream and downstream cofferdams will be in place in the Peace River to provide safe access for the main dam construction. To date, the in-river work included dredging in support of the stage 1 cofferdams.

Earthfill Dam

Work on the earthfill dam commenced in October 2018 and initial material placements for the earthfill dam continued through October 2019 and were planned to recommence in spring 2020 when temperatures are conducive to earthfill material placement. The COVID-19 pandemic has impacted the start date to this work, as the work areas associated with the earthfill dam construction have been scaled down.

Worker Accommodation

The Site C worker accommodation camp was originally designed to house 1,600 workers, with services and utilities to accommodate a total capacity of 2,200 plus the camp operations staff, should the need arise over the duration of the

Project. In 2018, various scenarios were modelled to forecast expected requirements for bed nights, and these indicated peaks in camp capacity greater than 1,600 beds occurring in 2020, 2021 and 2022 based on forecasted work volumes. In 2019, the first phase of a two-phase expansion was completed which added 150 beds. The Phase 2 camp expansion, which will provide an additional 450 beds, commenced construction in February 2020 and is planned to be completed by the end of May 2020.

Since January 2020, BC Hydro and the camp operator have implemented several measures to protect its employees, contractors and facilities as a result of the COVID-19 pandemic. These include working closely on the protocols mandated by the Provincial Health Authority and the British Columbia Centre for Disease Control for the worker accommodation camp and ensuring the on-site health clinic is well-stocked with the supplies needed to protect workers in the event of an outbreak.

There were no confirmed cases of COVID-19 at the worker accommodation during the reporting period. BC Hydro continues to monitor the situation closely and will implement new measures as the situation progresses based on information and advice provided by health authorities.

1.1.1.2 Generating Station and Spillways

The generating station and spillways scope of work includes the construction of the following major components:

- Generating station and spillways civil works, including:
  - Powerhouse: Concrete placements, installation of structural steel, and installing hydraulic gates;
  - Inlet headworks: Concrete placements, construction of the penstocks, and installing hydraulic gates; and
  - Spillways: Concrete placements and installing hydraulic gates.

- Cranes, which includes the supply and commissioning the powerhouse cranes, tailrace gantry crane, and headworks gantry crane; and
- Hydromechanical equipment, including the supply of all gates.

Generating Station and Spillways Civil Works

The generating station and spillways civil works contract is the second largest contract awarded for the Project and includes the delivery of civil works associated with the powerhouse, intakes, penstocks and spillways. Through March 18, 2020, cumulative concrete placements for all work areas were proceeding ahead of plan.

During the reporting period, progress on the generating station and spillways advanced on all work fronts prior to the escalation of the COVID-19 pandemic and work being scaled back at the dam site on March 18, 2020. The contractor stopped work on the generating station and spillways on March 18, 2020 and is now performing essential activities to care for the site, including concrete thermal control and water management. The following updates reflect the work completed prior to March 18, 2020.

Powerhouse

Work on the concrete placements for the powerhouse was ahead of schedule prior to work being suspended. To March 31, 2020, the contractor had placed approximately 89,000 cubic metres of concrete on a plan of 85,000 cubic metres. The steel superstructure over the main service bay was completed in 2019. The remaining superstructure was planned to be completed in 2020.

Intakes Headworks

Prior to the suspension of work on March 18, 2020, the contractor was on track to meet the intake headworks schedule milestones. As of March 31, 2020, 23,000 cubic metres of concrete had been placed out of a plan of 26,000 cubic metres. Work on Units 1, 2, 3, and 6 was approximately 26 per cent complete.

Penstocks

As of March 31, 2020, the generating station and spillways contractor had installed a cumulative total of 873,000 kg of steel for the penstocks compared to a plan of 1,600,000 kg of steel. The penstock work was approximately 22 per cent complete.

Spillways

The contractor has placed 14,000 cubic metres of concrete compared to a plan of 9,000 cubic metres of concrete. Prior to the suspension of work, construction of the upper spillway was planned to start in June 2020.

Cranes

Powerhouse bridge cranes were installed in the main service bay in June 2019. These cranes can lift the heaviest equipment in the powerhouse, including the major components of the turbines and generators. The cranes were scheduled to be commissioned and operational by June 2020, but due to the COVID-19 pandemic, this milestone will be delayed.

Hydromechanical Equipment

The generating station and spillways contractor completed installation of first stage embedded parts for Units 1, 2, and 3 draft tube maintenance gates. Intake gates and intake maintenance gates are expected to start shipping from Italy by October 2020.

1.1.1.3 Balance of Plant

Procurement timelines for the balance of plant contract have been extended to respond to concerns raised by proponents on the impact of the COVID-19 pandemic. The financial submission deadline for balance of plant was extended which will delay the contract award date past June 2020.

All ten of the balance of plant equipment supply contracts have been awarded. These include contracts for: generator terminal equipment; protection and control panels; AC station service; generator circuit breaker equipment; generator step up

transformer; powerhouse cooling water and dewatering large valve; the DC station service; the high voltage equipment; the compressed air receiver; and the diesel generator supply.

1.1.1.4 Turbines and Generators

The scope of work for turbines and generators includes the complete design, supply, installation, testing and commissioning of six turbines, generators, governors and exciters. At March 31, 2020, the design, procurement and manufacturing for the turbines and generators was on schedule.

Due to the COVID-19 pandemic, the contractor's work assembly and welding of embedded turbine components in its temporary manufacturing facility on the right bank at site has been shut down. However, delivery of components to site continues.

The contractor's São Paulo factory will supply most of the turbine generator components. There are some impacts due to the COVID-19 pandemic, but work is continuing. Meetings for various other turbine and generator components in the São Paulo factory are continuing and have been held concurrently with visits to many of the contractor's subcontractors in the São Paulo area and Europe. BC Hydro travel is suspended during the COVID-19 pandemic. BC Hydro will rely on inspections by BC Hydro subcontractors to carry out necessary factory testing and inspections in overseas locations.

Due to the COVID-19 pandemic, the powerhouse construction schedule is being revised. Mobilization and the turbine installation will be postponed from the original planned dates of May and July 2020, respectively.

1.1.1.5 Transmission and Substation

The transmission sub-project will connect the Site C Project to the BC Hydro transmission system. The scope of work includes the following major components:

- Two 75-kilometre-long, 500 kV transmission lines from the Site C substation to the Peace Canyon generating station;
- Three one kilometre long, 500 kV transmission lines from the Site C Generating Station to the Site C substation;
- A new 500 kV Site C substation; and
- Expansion of the existing Peace Canyon 500 kV Gas Insulated Switchgear to incorporate the two new 500 kV transmission line terminals.

Progress continued on the transmission and substation areas of the Project during the reporting period, with significant progress achieved on the first transmission line.

Work continued on the substation site, although with reduced crews due to winter weather. The following reflects progress achieved to March 31, 2020.

Transmission Towers and Lines

Access Roads and Clearing

Construction of the access roads at the western half of the transmission line right-of-way was completed in January 2020. Due to an unstable slide on the transmission line right-of-way, one of the access roads has become impassable and needs to be re-routed. This work is planned to be completed in June 2020.

Vegetation clearing and removal of all waste wood from the transmission line right-of-way was completed in March 2020.

Transmission Towers and Foundations

Significant progress was achieved on the transmission line foundations for both transmission lines (5L005 and 5L006). At the end of March 2020, 190 out of 200 foundations (95 per cent) were completed for 5L005 and 130 out of 200 foundations (65 per cent) were completed for 5L006.

A total of 179 out of 200 transmission towers for transmission line 5L005 were installed on foundations as of March 31, 2020. Work on tower assembly and installation has been halted, as planned, for spring break-up and will resume in spring/summer 2020 when access roads re-open.

Transmission Lines

The transmission line contractor was able to complete 11 out of 15 stringing segments on the 5L005 transmission line during the period, which was ahead of plan. The remaining four segments will be strung in summer 2020.

Assembly and installation of towers on the second transmission line, 5L006, will not start until line 5L005 has been energized, which will enable BC Hydro to de-energize the existing 138 kV lines on the right-of-way. Energization of transmission line 5L005 is planned for October 2020.

In total, 405 towers will support the two new 500 kV transmission lines that will connect the Site C substation to the Peace Canyon generating station, over a distance of 75 kilometres.

Substation

Substation construction continued through the reporting period, with reduced crews due to winter conditions. Buswork installation in the 500 kV switchyard continued and one of the two main 500 kV buses was completed.

Protection and control and telecommunication commissioning continued through the period and the substation was connected to BC Hydro’s control centre.

There are some remaining construction activities related to substation fence work, roadways within the station, and 500 kV buswork and signage, which will resume in May 2020. All construction activity is on track to be completed by summer 2020 with the primary focus being on the testing and commissioning work required for energization.

Substation construction remains on schedule for energization in October 2020.

Peace Canyon Gas-Insulated Switchgear Expansion

As part of the transmission sub-project, two new 500 kV lines will be connected to the BC Hydro electrical system at Peace Canyon. To accommodate these new lines, the Peace Canyon switchyard and 500 kV indoor gas-insulated substation were expanded. This work commenced in June 2018 and in July 2019 the 500 kV gas-insulated switchgear at Peace Canyon was energized, becoming the first Site C asset placed into service. Termination of the new 500 kV lines between Site C and Peace Canyon will occur when the first transmission line is complete in 2020 and the second line is completed in 2022.

1.1.1.6 Highway 29 and Hudson's Hope Shoreline Protection Berm

The creation of the Site C reservoir requires realignment of six segments of Highway 29 totalling approximately 32 kilometres. The scope of the highway realignment includes relocation of existing 25 kV distribution lines adjacent to the highway and the decommissioning of the existing highway. BC Hydro is working with the Ministry of Transportation and Infrastructure on Highway 29 construction. The Highways sub-project also includes the construction of a shoreline protection berm within the District of Hudson's Hope to protect against bank erosion due to reservoir wind waves and water table rise, and the development and operation of Portage Mountain Quarry, which will supply riprap and filter materials for highway and berm construction. The permanent highway realignment is planned to be completed by spring 2023 to ensure the highway remains accessible once the reservoir is inundated and the dam is operational.

The Highways 29 sub-project is divided into the following components:

- Cache Creek highway realignment and bridge;
- Halfway River highway realignment and bridge;

- Farrell Creek highway realignment and bridge;
- Farrell Creek East highway realignment;
- Dry Creek highway realignment and bridge;
- Lynx Creek highway realignment and bridge;
- Portage Mountain Quarry development and operation; and
- Hudson's Hope shoreline protection berm.

During the reporting period, significant progress was achieved on the highways constructions activities at Lynx Creek East and Halfway River. The following reflects progress to March 31, 2020.

Cache Creek

The Cache Creek highway segment has been divided into Cache Creek East (8.6 kilometres) and Cache Creek West (4.1 kilometres) to allow for the further realignment of Cache Creek East.

Cache Creek East

Construction on the Cache Creek East embankment commenced in March 2020. This embankment is being built to protect the new section of highway from the Site C reservoir. The start of construction was impacted by the COVID-19 pandemic but work remains on schedule for completion in summer 2020.

Construction of the Cache Creek East grading, paving and bridge is expected to start in late summer 2020.

Cache Creek West

Work was on hold during the period due to winter shutdown. Work is expected to resume in May 2020 and be completed in summer 2020.

Halfway River

The Halfway River Bridge includes the realignment of 3.7 kilometres of highway and the construction of a new one-kilometre-long bridge crossing the Halfway River, approximately 500 metres north of the current structure.

Construction of the Halfway River Bridge started in early January 2020 and continued throughout the reporting period. The contractor began building access to the bridge pier foundations (12 in total) and began undertaking foundation pile testing. The construction included setting up a concrete batch plant, moving equipment and materials to site, disposing wood waste, including burning, and removal of vegetation and topsoil.

In February 2020, the work on the bridge piling commenced and as at the end of March 2020, piling was completed on four of the twelve bridge piers. In March 2020, the contractor began the trial assembly of a bridge pier, which included placement of the mud slab, rebar and formwork. Excavation for the eastern and western bridge abutments was also started.

On April 5, 2020, subsequent to the reporting period, a serious safety incident occurred at the Halfway River bridge construction site. Two construction workers were seriously injured when the rebar material they were using to build one of the bridge piers failed. The workers were treated at the scene and transported to hospital in Fort St. John by ambulance. Both workers are recovering.

BC Hydro has partnered with the Ministry of Transportation and Infrastructure to realign the six segments of Highway 29. Since this work is being completed as part of the Site C project, BC Hydro views it as a safety incident on the Project and will be tracking the incident in our safety metrics. Our number one priority on Site C is the safety of our workers. BC Hydro is working with the Ministry of Transportation and Infrastructure, their contractor, and WorkSafeBC to review the incident and look

for opportunities for improvement. This incident will be included in the safety performance metrics in the next Quarterly Progress Report.

Farrell Creek

The Farrell Creek segment includes the realignment of 1.9 kilometres of highway, including the construction of a new 411-metre-long bridge.

There was no work at Farrell Creek during the reporting period. Construction is expected to start in fall 2020.

Farrell Creek East

The Farrell Creek East segment includes the realignment of 8.4 kilometres of highway. Geotechnical studies in 2019 concluded that 5.7 kilometres of this segment could be removed from the scope of work and monitored following the creation of the Site C reservoir, reducing the length of Farrell Creek East realignment work to 2.7 kilometres.

Dry Creek

The Dry Creek segment includes the realignment of 1.4 kilometres of highway, and the construction of a new 192-metre-long bridge.

Clearing and waste wood removal was undertaken at Dry Creek by the Lynx Creek East contractor, to mitigate future interfaces between the Dry Creek and Lynx Creek contracts. A temporary construction bridge was also installed, to gain access to gravel extraction sites.

A First Nation direct award procurement has been initiated on the Dry Creek grading, paving and bridge construction and is expected to be awarded in July 2020.

Lynx Creek

The Lynx Creek segment includes the realignment of 9.1 kilometres of highway and the construction of a 169-metre-long bridge. The Lynx Creek segment has been split into two contract packages; Lynx Creek East embankment and Lynx Creek.

Lynx Creek East

In January 2020, construction continued at Lynx Creek East with the contractor installing access, developing aggregate borrow areas and clearing vegetation.

In February 2020, in-river works commenced to construct a gravel causeway to Gates Island. Due to an active eagles' nest on the Lynx Creek East site, the contractor had to re-plan their work to access the Peace River Islands from a different location. This will impact the schedule for completing the Lynx Creek East embankment but does not impact the overall Highway 29 schedule.

In March 2020, clearing and grubbing of Gates and Dry Islands was completed and waste wood removal was undertaken. The first gravel causeway was completed to Gates Island, as well as a second gravel causeway between Dry and Gates Islands.

Overall, the Lynx Creek East embankment construction is on schedule to be completed prior to the start of the Lynx Creek grading, paving and bridge contract.

Lynx Creek

A First Nations contractor was directly awarded a contract in early February 2020 for the Lynx Creek West clearing. The clearing, including waste removal, was completed in May 2020.

Construction of the Lynx Creek grading, paving and bridge contract is expected to start in fall 2020.

Portage Mountain Quarry and Hudson's Hope shoreline protection berm

Portage Mountain Quarry will supply riprap and filter materials for sections of Highway 29 realignment and construction of the shoreline protection berm for the District of Hudson's Hope. During the period, riprap from Portage Mountain was delivered for the Lynx Creek East causeway construction. Clearing of a new stockpile area for Portage Mountain riprap was completed in March 2020.

In February 2020, negotiations for increased volumes of riprap and berm filter materials were initiated and continued into March 2020.

1.1.1.7 Reservoir[1]

The reservoir clearing scope of work is divided into the following main regions:

- Lower reservoir, Moberly River drainage and eastern reservoir including Cache Creek drainage
- Middle reservoir, Halfway River drainage and western reservoir
- Transmission Line Relocation

Clearing in the lower reservoir, Moberly River drainage, eastern reservoir and middle reservoir is required to support river diversion in fall 2020. All other clearing is scheduled for completion by 2023, prior to reservoir inundation.

The COVID-19 pandemic has had some impact on the clearing activities, but work continued generally as planned during this reporting period. The following reflects progress to March 31, 2020.

[1] This section was previously referred to as 'Reservoir Clearing'.

Lower Reservoir, Moberly River Drainage and Eastern Reservoir, Including Cache Creek Drainage

Lower Reservoir

Clearing activities in the lower reservoir, Moberly River drainage, north bank of the eastern reservoir and Cache Creek area are either substantially or fully complete. Waste wood management, including burning, is ongoing in some areas and any remaining debris that will need to be disposed of in advance of diversion will be addressed by summer 2020.

Road construction and clearing of the right bank of the eastern reservoir commenced in July 2019 and continued through to March 2020. Work is substantially complete with only waste wood disposal including burning outstanding.

Over 300 piles of waste wood were burned during the reporting period for Moberly Drainage, Cache Creek Drainage and eastern reservoir. Burning occurred when conditions were favourable and venting windows were available.

Middle Reservoir, Halfway River Drainage and Western Reservoir

Clearing work started late summer in the middle reservoir between Cache Creek and the Halfway River and continued through March 2020. Three contract packages were awarded between August 2019 and January 2020 to complete this work. All clearing was completed except for 30 or 40 hectares associated with wildlife buffers and steep slopes and waste wood burning. Any outstanding work will be completed after August 2020.

Planning for the 2020/21 clearing activities was started in January 2020 with procurement on the first contract package anticipated to start by May 2020. Work will continue in the Halfway River drainage and further westward in subsequent clearing seasons.

Transmission Line Relocation

Geotechnical investigative studies to support the transmission line relocation of an existing transmission line that crosses the Halfway River, was completed in February 2020. This work is required prior to inundation.

1.1.2 Engineering

Engineering provides technical support across the Project with substantial focus given to the maintenance and achievement of the contractor's schedule for both the main civil works contract and the generating station and spillways civil works contract. Through the reporting period, engineering continues to support all aspects of the Project.

Main Civil Works

Engineering design for the main civil works continues to focus on finalizing plans for advancement of the river diversion schedule.

Detailed geological mapping of the excavations and instrumentation monitoring continued during construction. This information has been used to update the design parameters for the site geology and foundations, which has resulted in additional requirements for the right bank structures.

Recommended enhancements included design changes for the roller-compacted concrete core buttress to enhance the foundation with anchors, additional grouting for the earthfill dam and a shear key for the right bank of the earthfill dam.

Additional foundation enhancements include improvements to the spillways and powerhouse roller-compacted concrete buttresses. Several options are being evaluated against Project criteria, including improvements to the drainage within the rock and changes in the design of the approach channel. The benefit of additional drainage would be to reduce the water pressure acting on the roller-compacted

concrete structures. A range of options are also being compared, including piles, anchors and structural support in the approach channel.

Based on further engineering analysis of mitigation measures, the foundation enhancement costs are expected to be much higher than initially expected in January. Construction cost estimates and constructability reviews are being conducted in parallel to compare the options and evaluate the cost and schedule implications to the Project. A plan to evaluate, recommend, and document the conceptual preferred measures using a structured decision making process is underway.

During the reporting period, an update was also provided to the Technical Advisory Board on the analysis for the earthfill dam and the potential for pore pressure increases during construction.

Large Cranes, Hydromechanical, Turbines and Generators

Engineering support to construction, manufacturing and vendor integration continues for the large cranes, hydromechanical equipment and turbines contracts.

Generating Station and Spillways, Balance of Plant and Equipment Supply

Several batches of construction drawings for the generating station and spillways civil works contract were completed during the period January 1, 2020 to March 31, 2020, in support of, and in accordance with the revised contractor's schedule for the release of remaining construction drawings. Following on the release of drawings for the powerhouse, progress continued to be made on the Issued for Construction drawings for the spillways.

The implementation design for the balance of plant and equipment supply packages for generating station and spillways has been advancing which includes the 3D modelling work and preparation of Issued for Construction drawings. Review of the design submittals for the ten equipment supply contracts is on going. The final draft

of the technical specifications and proposal drawings for the request for proposals for the balance of plant contract were issued in December 2019. Responses were prepared for over 300 requests for information from the proponents and the evaluation of the technical submittals for the balance of plant request for proposals was completed.

Engineering design continued to be advanced on the protection and control systems and is on schedule with various protection and control panels now under construction.

Transmission and Substation

Protection and control, and telecommunications designs are being developed for a transmission system planned remedial action scheme (power system control sequence used in the event of a major electrical system disruption) for the Site C substation and 5L005 transmission line. Review and approval of Peace Canyon Gas Insulated Switchgear expansion record drawings was completed.

Highway 29

Designs have been advanced on all highway realignment segments. The Cache Creek East, Farrell Creek and Farrell Creek East designs have been advanced to the 100 per cent detailed design level, but the Dry Creek bridge design is being revised due to geotechnical issues.

Tender designs for Cache Creek, Farrell Creek, Lynx Creek and Dry Creek are expected to be completed in the next quarter.

Technical Advisory Board

A Technical Advisory Board meeting was held in January 2020 in Vancouver. A series of conference calls were completed with the Technical Advisory Board from January to March 2020 and a report from the Technical Advisory Board was issued to BC Hydro summarizing these recent teleconferences in April 2020. The next

Technical Advisory Board conference call is scheduled for May 8, 2020 followed by a series of teleconference calls being schedule for June 2020.

1.1.3 Quality Management

The Project has a quality management plan that outlines activities to ensure materials, equipment and the constructed works meet contract quality requirements. The plan identifies resources and procedures necessary for achieving the quality objectives, roles and responsibilities, resource planning and establishment of a quality management program.

During the reporting period, the Project team continued its activities to support the Project Quality Plan, including:

1. continuing the quality audit program for site works;
2. provision of training to site personnel on specific quality processes; and
3. continuing with monthly quality performance indicator assessments for the engineering, manufacturing and construction activities across each sub-project.

The Project team continues to track and manage quality nonconformances, which is an occurrence that does not conform to the quality requirements of the contract. Table 2 identifies quality management nonconformity instances during the reporting period.

Table 2 Quality Management Nonconformity Report Metrics Reporting Period – January 2020 to March 2020

	January 1, 2020 to March 31, 2020		Cumulative to Date		Open as of March 31, 2020
Contract	Reported	Closed	Reported	Closed	
Main Civil Works	122	65	1,601	1,365	236
Turbines and Generators	58	35	184	102	82
Generating Station and Spillways Civil Works	56	51	372	306	66
Large Cranes	1	1	18	18	0
Hydromechanical Equipment	5	3	13	11	2
Transmission	5	6	107	91	16

During the reporting period, the main civil works contractor focussed on repairing the surface defects on the diversion tunnel liner concrete segments and initiated discussions with BC Hydro on the approach to repairing the thermal cracks in the lining segments. The contractor's onsite materials testing laboratory underwent recertification by the Canadian Council of Independent Laboratories and BC Hydro performed an audit of the contractor's laboratory processes. Once work related to the main dam construction resumes, BC Hydro will also resume its auditing program of the contractor's laboratory. BC Hydro and the contractor continue to meet weekly to discuss and resolve open nonconformity reports as well as discuss broader topics related to the contractor's quality performance.

For the turbines and generator contract, the quality of the components manufactured to date has been good. BC Hydro's quality management team travelled to Sao Paulo in February 2020 to meet with the contractor and our local inspection agency to further develop the relationship and to resolve the inspector-access challenges at the main manufacturing facilities. BC Hydro continues to meet with Voith on a weekly basis to discuss upcoming inspections, quality issues and the overall quality assurance program.

While the quality of the structures built to date by the generating station and spillways civil works contractor continues to be good, there was an increase in nonconformities related to its concrete thermal control procedures during the reporting period. The root cause appears to be the robustness of the heating and hoarding structures in locations susceptible to high-winds and snow loads, and improvements will be required for future winter work. As penstock manufacturing and installation activities continued during the reporting period, BC Hydro and Powertech Labs worked closely with the contractor to ensure its penstock dimensional control and welding procedures were being followed. BC Hydro continues to meet with the contractor on a weekly basis to discuss and resolve quality issues.

For the transmission sub-project, of the five nonconformities raised during the reporting period, two were related to the timeliness of clipping the conductors to the towers. BC Hydro is working with the installation contractor to assess what corrective actions are to be taken in advance of resuming construction in autumn 2020. BC Hydro continues to perform quality surveillance audits of the transmission contractors to verify that their quality management systems are being adhered to.

As a consequence of the COVID-19 pandemic, BC Hydro’s ability to travel nationally and internationally to participate in equipment inspections and final acceptance tests has been restricted. BC Hydro is meeting with equipment suppliers and quality assurance partners on a weekly basis to plan upcoming inspections and to coordinate local third-party representation to ensure quality requirements are satisfied prior to components being shipped.

1.2 Safety and Security

With a strong focus on meeting time-critical construction milestones including diversion of the Peace River in September 2020, the pace of work continued across most Project work fronts this reporting period. This work was complicated by challenging winter conditions. With temperatures at times dipping to -33 C, with wind chill to -44 C, a key safety focus was to ensure contractors and BC Hydro implemented their cold exposure plans and workers were able to stay warm. The increase in work activity, including more hazardous work, and the continued work through winter season, have resulted in a slight worsening in safety performance metrics.

Safety Planning for Diversion

Planning for public and worker safety during river diversion increased in January 2020. Planned safety measures include a public communication campaign, safety embedded in construction planning and operational processes, and diversion focused safety hazard identification and mitigation strategies. The Public Safety and Security diversion plan includes a fulsome signage plan for the Moberly and Peace Rivers, and flashing lights as warning on the final reach of the Peace River (before the first debris boom). The Diversion Safety Plan identifies safety hazards specific to diversion activities and key requirements for contractors' Safety Management Plans for each of the diversion works.

Infectious Diseases Safety Response

In mid-January 2020, Northern Health Authority issued an Alert for a seasonal increase in Influenza A and B cases on the Project. Health and safety measures implemented in camp accommodations and by the onsite medical clinic (including patient isolation) as well as in contractors work areas and lunchrooms effectively managed the influenza situation and provided early readiness for COVID-19.

By mid-March 2020, in response to increasing escalation of provincial measures, BC Hydro substantially reduced work activities on the Project, focusing on essential services such as safety and security and critical work to achieve river diversion. In addition to reducing occupation in the worker accommodation camp for physical distancing, several other measures were implemented to ensure worker health and safety on the continuing work. These measures included travel restrictions, work-from-home programs, multi-staged health screening (including at the site access security gates), wide-ranging service modifications in the worker accommodation camp, worker isolation facilities, enhanced medical clinic support, extended worker shift schedules, and daily compliance monitoring.

Summary of Safety and Regulatory Performance Metrics

As of March 31, 2020, all work fronts across the Project have completed more than 24 million work hours since the Project started in late 2015, with no fatalities and one permanent partial disabling injury in 2017. Subsequent to the reporting period, a serious safety incident occurred at the Halfway River bridge construction site. Two construction workers were seriously injured when the rebar material they were using to build one of the bridge piers failed. The workers were treated at the scene and transported to hospital in Fort St. John by ambulance. Both workers are recovering.

BC Hydro has partnered with the Ministry of Transportation and Infrastructure to realign the six segments of Highway 29. Since this work is being completed as part of the Site C project, BC Hydro views it as a safety incident on the Project and will be tracking the incident in our safety metrics. Our number one priority on Site C is the safety of our workers. BC Hydro is working with the Ministry of Transportation and Infrastructure, their contractor, and WorkSafeBC to review the incident and look for opportunities for improvement. This incident will be included in the safety performance metrics in the next Quarterly Progress Report.

From January to March 2020 the Project reported six serious safety incidents, consisting of three near misses and three injuries which either required medical attention or had the potential to be a serious injury, down from ten in the previous quarter. There were 246 non-serious safety incidents reported including 67 near misses and 174 low grade injuries that may have required first aid and/or medical attention treatment. Non-serious safety incidents are also down from the previous quarter. A “near miss” is defined as an incident that could have resulted in an injury but did not because of effective hazard barriers or the person was out of harm’s way/missed. BC Hydro considers near miss reporting as indicative of a stronger and improving safety culture and is strongly encouraging all Site C contractors and employees to report near misses.

Table 3 below reflects safety and regulatory performance results for the Project, including all contractors. The table summarizes results in a tabular format, with incident details provided below the table.

Table 3 Summary of Site C Safety and Regulatory Metrics

	Reported January 1, 2020 to March 31, 2020[2]	Reported Since Inception (July 27, 2015 to March 31, 2020)
Fatality[3]	0	0
Permanently Disabling Injury[4]	0	1[5]
Serious Incidents[6]	6	61
Lost Time Injuries[7]	4	30
All-Injury Incidents[8] (Lost Time Injuries[7] and Medical Attention requiring Treatment[9])	22	174

Serious Safety Incidents

The six serious incidents that occurred during the reporting period include:

1. During hydrostatic pressure testing on a 40-foot pipe, the plug on the pipe released then struck the worker. The worker injured their hip.
2. A shotcrete operator changed direction while spraying shotcrete in the diversion tunnel and the shotcrete travelled through a gap in the tarp barrier and contacted another worker's eyes.
3. A group of carpenters were tasked with cutting a notch in a plywood form to install a water stop. In order to make the cut, some of the rebar support ties were

2 Numbers are subject to change due to timing of when data is retrieved and when injury is categorized.

3 Excludes health events unrelated to work standards.

4 A permanently disabling injury is one in which someone suffers a probable permanent disability.

5 In June 2018, an injured worker received a permanent partial disability award from WorkSafeBC due to a lost time injury incident in August 2017. The worker was attempting to unload a light plant (tower) from a flatbed truck. The worker stepped on the light plant (tower) outrigger to gain enough height to reach the lifting attachment when the worker lost balance and fell approximately 7.5 feet to the ground. BC Hydro reclassified this incident as a permanent disabling injury after receiving an update on the WorkSafeBC award in June 2018. The incident is identified as a serious injury in the BC Hydro Incident Management System.

6 Serious incidents are any injury or near miss with a potential for a fatality or serious injury.

7 Lost time injuries are those where a worker (employee or contractor) misses their next shift (or any subsequent shift) due to a work-related injury / illness. If a worker only misses work on the day of the injury, it is not considered a lost time injury.

8 All Injury incidents is a count of all work-related fatalities, lost time injuries and medical attention requiring treatment.

9 Medical attention requiring treatment is where a medical practitioner has rendered services beyond the level defined as "diagnostic or first aid" and the worker (employee or contractor) was not absent from work after the day of the injury. Services beyond diagnostic/first aid include (but are not limited to) receiving stitches, a prescription, or any treatment plan such as physiotherapy or chiropractic.

loosened. As they were cutting the plywood vertically, the horizontal rebar began to lean sideways causing the rebar wall to collapse.

4. An eight-inch diameter hose fell from a crane at the Moberly piles construction site and hit a worker.

5. Two workers were performing shotcrete chipping activities in the diversion tunnel outlet one area and did not have a proper silica exposure control plan in place.

6. A worker was performing welding activities in the powerhouse unit one area and did not have proper local exhaust ventilation at the source of the welding.

All Injury Incidents

The 22 injury incidents that occurred during this reporting period include four lost time injuries and 18 medical attention injuries:

Lost Time injury

1. A shotcrete operator changed direction while spraying shotcrete in the diversion tunnel and the shotcrete travelled through a gap in the tarp barrier and contacted another worker’s eyes.

2. A worker was exiting their pickup truck when they slipped on ice, lost their footing and fractured their foot.

3. A worker was assisting with lowering a fuel hose and nozzle after refueling a dozer. The worker tore their bicep.

4. A sizable piece of square tubing fell on top of a worker’s hardhat. The worker suffered a concussion.

Medical Attention requiring Treatment

1. During the hydrostatic pressure testing on a long 40-foot pipe, the plug on the pipe released and then struck the worker. The worker injured their hip.
2. A worker pinched their finger when a tool slipped. The worker suffered a laceration.
3. A worker tripped over a sandbag and had a laceration on their chin.
4. A worker felt discomfort in their eye while chipping shotcrete.
5. A worker felt discomfort in their eye after cleaning in the coupling chamber.
6. A worker moving the robot track in penstock one injured their shoulder.
7. A worker removing trailer load securement straps chipped a tooth.
8. A worker tripped over some wood and had a laceration on their leg.
9. An oxygen bottle fell on a worker's leg.
10. A worker felt discomfort in their eye after grinding work.
11. A worker removing lumber received a splinter to their hand.
12. A worker felt discomfort in their eye after grinding work.
13. A worker's tool slipped and pinched their finger. The worker suffered a laceration.
14. A worker slipped climbing on a ladder and dislocated a thumb.
15. A worker felt discomfort in their eye after grinding work.
16. A worker experienced discomfort to both of their eyes due to welding flash burn.
17. A worker was heating a steel nut in a tight area and burned their fingers.
18. A worker's tool slipped and pinched their finger. The worker suffered a laceration.

Safety Performance Frequency Metrics

To assess safety performance over time, the Project considers key safety metrics in context of the total amount of hours worked (frequency) which corrects for the volume of work. Table 4 below summarizes these key safety frequencies by quarter for a rolling 12-month average.

Table 4 Summary of Safety Performance Frequency Metrics

	Fiscal 2019 April 2018 – March 2019 (Rolling 12-Month Average)				**Fiscal 2020** April 2019 – March 2020 (Rolling 12-Month Average)			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Serious Incident Frequency	0.95	0.56	0.44	0.36	0.43	0.39	0.53	0.53
Lost Time Injury Frequency	0.48	0.43	0.40	0.29	0.23	0.18	0.14	0.20
All Injury Frequency	1.67	1.47	1.25	1.01	1.03	1.43	1.68	1.92

Comparing the rolling 12-month average Q4 results from Fiscal 2019 to 2020 shows serious incident frequency and all-injury frequency metrics (adjusted for work hours) have increased over the past year, while lost time injury results have decreased.

The serious incident frequency for the 12-month period ending March 2020 is 0.53, which remained the same as in Q3, but significantly increased compared to the 12-month period ending March 2019. Similarly, the all-injury frequency is 1.92 for Q4, a 14 per cent increase over Q3 and a 90 per cent increase from March 2019. These safety frequency results reflect, at least in part, that construction work on the Project did not slow down for the winter months of 2019/2020.

The lost time injury frequency is 0.20 for this reporting period, which is higher than the prior quarter reflecting increased safety incidents from working in deep winter conditions; however, it is lower than the 12-month period ending March 2019.

Safety Regulatory Inspections and Orders

WorkSafeBC, under the authority of the *Worker's Compensation Act*, is the primary regulator with jurisdiction over safety for the Project. WorkSafeBC oversees all worker safety (employee and contractor) for the Project, both on the dam site and off the dam site. The Ministry of Energy, Mines and Petroleum Resources is the regulatory authority for worker safety on any work fronts subject to the *Mines Act*, specifically West Pine Quarry, Portage Mountain Quarry, and Wuthrich Quarry.

As shown in Table 5 below, from January to March 2020 WorkSafeBC issued 12 regulatory inspection reports and six regulatory orders. The Ministry of Energy, Mines and Petroleum Resources did not conduct any regulatory inspections during this period.

Table 5 Safety Regulatory Inspection and Orders

	Reported January 1, 2020 to March 31, 2020[10]	Reported Since Inception (July 27, 2015 to March 31, 2020)
Regulatory Inspections	12	168
Regulatory Orders	6	257

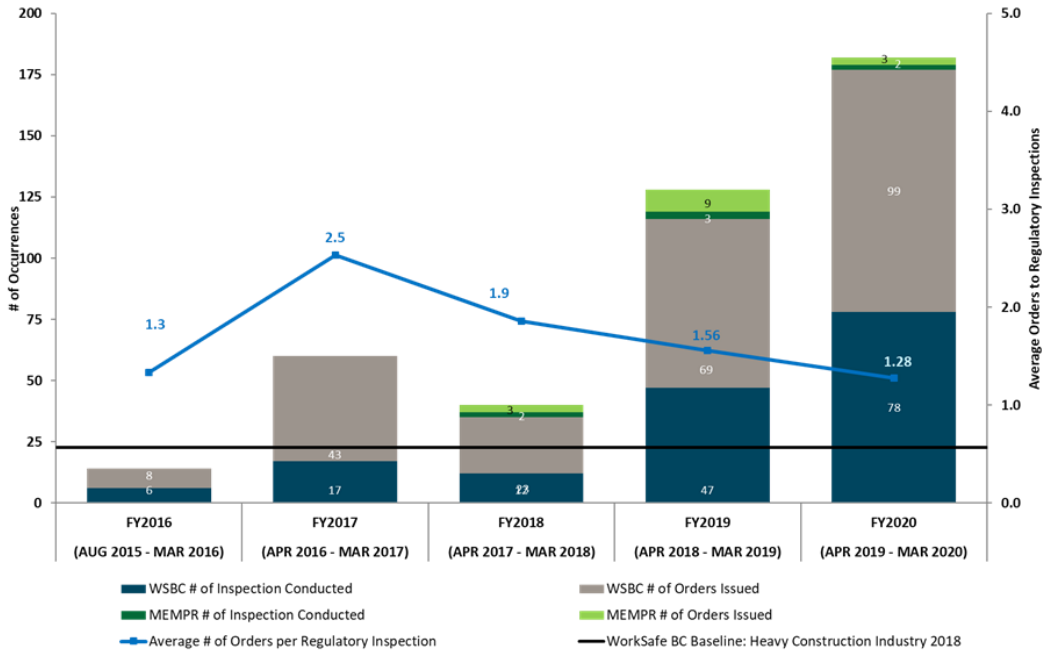
Of the 12 inspection reports, eight (67 per cent) were a 'clean sheet' with no orders. This is a significant improvement over the 39 per cent from the same Q4 timeframe ending in March 2019. Refer to Appendix B, for a list of safety regulatory inspections and orders received from January to March 2020.

In early March 2020, the main civil works contractor received an administrative penalty from WorkSafeBC for the maximum allowed under regulation. This penalty was related to violations of Occupational Health and Safety Regulations identified in three WorkSafeBC inspections from January to August 2019. This is the third time this contractor has received an administrative penalty from WorkSafeBC. The penalty has been posted to WorkSafeBC's website.

[10] Numbers are subject to change due to timing of when data is retrieved and when injury is categorized.

To more broadly assess regulatory safety compliance, the Project monitors an additional metric — average number of orders per regulatory inspection — to help account for the higher volume of regulatory inspections expected at such a large construction project. For this reporting period, the average number of orders per regulatory inspection is 1.28, an improvement from 1.56 compared to the same period in 2019.

Figure 2 Number of Orders to Regulatory Inspections, 2015 to 2018



1.3 First Nations Consultation

Pursuant to the Environmental Assessment Certificate and Federal Decision Statement, BC Hydro is required to consult with 13 Indigenous groups with respect to the construction stage of the Project. This consultation includes provision of information on construction activities, support for the permit review process, and review and implementation of mitigation, monitoring and management plans, and permit conditions.

Accommodation offers were originally extended to ten First Nations communities. Six agreements have been fully executed and are in various stages of implementation. In February 2019, the Province of British Columbia, BC Hydro, West Moberly First Nations and Prophet River First Nation agreed to enter into confidential discussions to seek alternatives to litigation related to the Site C Project. West Moberly First Nations withdrew from the discussions in August 2019 and filed an amended Notice of Civil Claim in September 2019. Discussions with Prophet River First Nation remain open. To date, Impact Benefits Agreements with Doig River First Nation, Halfway River First Nation, Saulteau First Nation and McLeod Lake Indian Band, and a Project Agreement with Dene Tha' First Nation have been publicly announced.

Diversion readiness engagement activities are being adapted in light of the COVID-19 pandemic, including continuation of Permitting and Environment Forums and the Culture & Heritage Resources Committee by video conference. Community meetings and site tours planned for spring 2020 are on hold and alternatives are being explored. Consultation is ongoing with impacted First Nations regarding options and site-specific plans for identified burial and cultural sites impacted by reservoir inundation, in particular in the Halfway River and Cache Creek-Bear Flats areas. However, related field work is on hold. The cultural monitoring program continues to be offered.

1.4 Litigation

A number of legal challenges to the Project have been filed by First Nations and other interests. In all cases where the courts have issued rulings, the legal challenges have been dismissed.

The treaty infringement claims filed by West Moberly First Nations and Prophet River First Nation in January 2018 remain active. West Moberly First Nations had concurrently filed an injunction application in January 2018 to stop construction of

the Project pending the trial of their treaty infringement claim, but the interim injunction was denied by the court.

In February 2019, the Province of British Columbia, BC Hydro, West Moberly First Nations and Prophet River First Nation agreed to enter into confidential discussions to seek alternatives to litigation related to Site C. West Moberly First Nations withdrew from the discussions in August 2019 and is continuing with its litigation. Discussions with Prophet River First Nation remain open.

On September 25, 2019, the West Moberly First Nations filed an Amended Notice of Claim, which, among other things, expands their original treaty infringement action, shifting the focus to all three Peace River facilities, not just Site C, and their alleged cumulative impacts. The West Moberly First Nations are seeking an injunction against operating the Site C Dam, an order to remove the dam, and damages, including the payment of all revenues earned on the existing Peace River dams. BC Hydro is preparing for the trial, expected to occur sometime in 2022.

The details of open proceedings in 2019 are summarized in Table 6 below. Other than the treaty infringement claims, the litigation listed in Table 6 is either inactive, meaning no steps have been taken in litigation that require a response from BC Hydro, or do not present a material financial risk to BC Hydro.

Table 6 Litigation Status Summary

Description		Date
B.C. Supreme Court: Treaty Infringement Claims		
West Moberly First Nations	Civil claim filed Injunction application filed Injunction hearing date Injunction denied (no appeal filed) Amended civil claim filed	January 15, 2018 January 31, 2018 July 23 to August 3, 2018 and September 4 to 7, 2018 October 24, 2018 September 25, 2019
Prophet River First Nation	Civil claim filed	January 15, 2018
B.C. Supreme Court: Civil Claims		
Building Trades v. BC Hydro	Civil claim filed Response to claim filed	March 2, 2015 April 10, 2015
Aggregate Mining Process LLC and Reynolds Shipping LLC	Civil claim filed Response to claim filed Order granting security for BC Hydro's costs Application to dismiss filed after plaintiff failed to post security as ordered (later adjourned after plaintiff belatedly posted security)	November 16, 2018 December 6, 2018 June 17, 2019 July 31, 2019

1.5 Permits and Government Agency Approvals

1.5.1 Background

Before the Site C Project could start construction, an extensive environmental assessment process was undertaken which resulted in the issuance of the Provincial Environmental Assessment Certificate and the Federal Decision Statement in support of the Project. In addition, the Project is required to apply for multiple provincial permits, water licences, leaves to commence construction/diversion and federal authorizations. Timing of the application for these permits and authorizations is staged and aligned with the construction schedule, availability of detailed design information and by Project component. Permitting approaches and requirements are also determined through regular meetings with regulatory agencies and are subject to change throughout the Project. As at March 31, 2020, BC Hydro estimates that

approximately 480 permits will be required throughout the life of the Project. Of these permits, 362 have been received and are actively being managed.

Multiple conditions are attached to each permit or authorization, which cover subjects such as air quality, water quality, fish and aquatics, wildlife, heritage, health and safety, construction environmental management and First Nations consultation. Each of the conditions must be implemented, audited and tracked to prove compliance or identify issues for follow-up with corrective actions. BC Hydro has developed a comprehensive Construction Environmental Management Plan which outlines how we will comply with the Project Environmental Assessment Certificate, Federal Decision Statement, and provincial and federal permits and authorizations. As of March 31, 2020, all required conditions and submissions have been met in accordance with the schedule and requirements of the conditions.

1.5.2 Federal Authorizations

Federal authorizations are required under the *Fisheries Act* (Fisheries and Oceans Canada) and the *Navigation Protection Act* (Transport Canada). All major federal authorizations for construction and operation of the Site C dam and reservoir were received in July 2016. At this time, no further *Fisheries Act* authorizations are anticipated. Additional *Canadian Navigable Waters Act* approvals for discrete works in the reservoir (e.g., shoreline works, debris booms and Highway 29 bridges) are anticipated to be issued at the regional level. As of March 31, 2020, a total of 57 federal approvals have been received and are actively being managed. Seven approvals were pending, and 14 future approvals are planned.

1.5.3 Provincial Permits

Site C requires provincial permits primarily under the *Land Act, Water Sustainability Act, Forest Act, Wildlife Act, Heritage Conservation Act,* and *Mines Act*. These permits include investigative permits, licences to occupy land, water licence approvals, leaves to commence construction and leaves to construct, and licences

to cut vegetation, among others. Permit applications are sequenced with the overall schedule of the Project to ensure the most current and factual information is included in the submissions.

Approximately 400 provincial permits and approvals will be required throughout the life of the Project. As of March 31, 2020, 305 permits have been obtained and are actively being managed. These have included permits for the dam site area (site preparation and clearing, as well as works for the main civil works and generating station and spillways, such as construction of cofferdams, excavation and construction of roller-compacted concrete buttress), worker accommodation (land tenure and water withdrawal), Highway 29 geotechnical investigations and construction, transmission line clearing and construction of access roads, and lower eastern/western reservoir and Moberly River clearing. Future provincial permits are planned for the construction of the Highway 29 realignment, Hudson's Hope Berm, and middle and western reservoir clearing and filling. All future permits are anticipated to be issued in accordance with the Project construction schedule.

The majority of the provincial permits are administered by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development and the Ministry of Energy, Mines and Petroleum Resources. In addition, BC Hydro has developed a coordinated First Nations consultation process with the Ministry of Forest, Lands, Natural Resource Operations and Rural Development to assist with the government permit workload. This coordinated consultation process was implemented in January 2018.

1.5.4 Environmental Assessment Certificate

Compliance with the Project conditions in the Environmental Assessment Certificate is regularly monitored, and evidence is collected by various federal and provincial regulatory agencies, the Independent Environmental Monitor, BC Hydro and contractors.

To March 31, 2020, the Environmental Assessment Office has issued six amendments to the Project's Environmental Assessment Certificate. The Environmental Assessment Office is currently reviewing one amendment request regarding design changes to the Highway 29 realignment crossings at Farrell Creek, Dry Creek and Lynx Creek. All amendments and amendment requests are posted on the Environmental Assessment Office website at https://projects.eao.gov.bc.ca/p/site-c-clean-energy/docs:

As with any large construction project, refinements to the design are expected. There are no material impacts to the cost of the Project as a result of the proposed amendment requests.

1.5.5 Permitting Improvement

To efficiently and effectively manage the large volume of permits required for the Project, BC Hydro continues to engage with regulators, Indigenous groups, and contractors to share information, seek feedback, and identify process improvements. Process improvements implemented include the following:

- BC Hydro continues to facilitate meetings with the Ministry of Forests, Lands, Natural Resource Operations and Rural Development, the Comptroller of Water Rights, the Department of Fisheries and Oceans and contractors to ensure permit applications are coordinated, timely and sufficient;
- Regular permitting forums are being held with Indigenous groups to share information on upcoming permit applications and to seek feedback before applications are submitted to regulators;
- BC Hydro has implemented a coordinated Indigenous groups consultation process with the Ministry of Forest, Lands, Natural Resource Operations and Rural Development to assist with the government permit workload; and

- Permitting Forum No. 16 was held on February 20, 2020, covering 12 permit applications for works related to Highway 29 realignment at Lynx Creek West and Dry Creek, Lynx Creek boat launch, Hudson's Hope Shoreline Protection and transmission line stringing.

1.6 Environment

1.6.1 Mitigation, Monitoring and Management Plans

The Environmental Assessment Certificate and Federal Decision Statement conditions require the development of draft and final environmental management, mitigation and monitoring plans, as well as the submission of annual reports on some of these plans.

Focus remains on minimizing sediment and erosion across the dam site, care of water, hydrocarbon management and invasive weed control. Given the size of the Project and the length of construction, wildlife is becoming less wary of the site. As such, wildlife attractant management is becoming more of a focus.

On the left bank, construction of the sediment control features located at L3 (a gulley on the left bank which contains a stream that flows for a portion of the year) is substantially complete. Final work to line a sediment pond that treats road runoff prior to releasing into L3 has been postponed until summer 2020. Care of water systems are complete within the till conveyor area and include directional ditching, sediment control devices and ponds.

On the right bank, a facility to treat water that has contacted naturally occurring acidic rock has been operational for almost two years and the main civil works Contractor is presently establishing new infrastructure for relocating this facility to enable diversion-related works to progress. This relocation is expected to occur in spring 2020.

Works are complete for the right bank downstream side channel fish enhancement project. This side channel has created shallow, still backwaters that provide valuable habitat for fish within the Peace River.

Wildlife mitigation programs are progressing, with further installations of summer bat boxes, fisher maternity boxes, eagle nest platforms and snake dens necessary in advance of reservoir clearing. Wildlife sweeps of the area for any potential project interactions continue regularly and appropriate mitigation or avoidance practices established, such as snake fencing and warning signs, no work zones, and limiting hours or days of work.

Wildlife and fisheries studies and monitoring continue to collect baseline usage data for comparison post dam construction. The Temporary Fish Passage facility adjacent to the diversion tunnel outlet is nearing completion.

Air quality, water, noise and light monitoring continue at various locations throughout the Project with only localized or sporadic elevated readings noted and appropriate mitigation taken.

From January 1, 2020 to March 31, 2020, seventeen annual reports were submitted in accordance with the conditions.

1.6.2 Environmental Compliance Inspections and Enforcement

During this reporting period, the Project was inspected by the Independent Environmental Monitor and provincial and federal regulators from the B.C. Environmental Assessment Office, the Ministry of Forests, Lands, Natural Resource Operations and Rural Development and Transport Canada who performed more than 540 hours of inspections.

Throughout the course of the on-site inspections, environmental compliance was focused on the following areas:

- Selected over-greasing of equipment at the dam site area. BC Hydro is requiring any noncompliant contractors to immediately address the non-compliances and implement an action plan that requires equipment to be maintained going forward to prevent a re-accumulation of grease.
- Finalizing construction of a large sediment pond that received runoff from the 85h Ave Industrial lands in preparation for spring snowmelt.
- Preparing necessary infrastructure to relocate the Mobile water treatment plant (Scheduled for May 2020).
- Spill prevention and response plans. BC Hydro is addressing this concern by continuing to utilize spill pads and drip trays and monitoring of equipment with appropriate storage and disposal. This also includes replenishing/refreshing spill kits and continued spill kit inspections.
- In January 2020, BC Hydro received an Order from the Environmental Assessment Office regarding animal attractant management. To address this Order, BC Hydro is actioning items such as new communication tools (posters, videos, tailboards) regarding the need to manage attractants better, increased inspections and a focussed effort on managing wildlife attractant related Contractor noncompliance’s.

BC Hydro completed almost 10,000 environmental compliance inspections in the reporting period, with a compliant or partial compliant result of 98 per cent across all contractors and works areas.

During the reporting period, the independent environmental monitor continued weekly inspections with a focus on hydrocarbon management, waste disposal,

erosion and sediment control, dust management, and wildlife management. Overall, the weekly inspections indicated general environmental compliance.

Site C Project staff met bi-weekly with provincial regulators to ensure ongoing focus and attention to the areas of most importance and concern for the regulators, and to proactively address any environmental or regulatory issues that may arise.

Issues continue to be observed for excessive greasing of equipment and hydrocarbon spills and management of animal attractants. BC Hydro is working with its on-site contractors to raise the awareness of both spill/leak prevention requirements, equipment maintenance and management of animal attractants.

1.6.3 Heritage

In accordance with Environmental Assessment Certificate and Federal Decision Statement conditions, the Site C Heritage Resources Management Plan addresses the measures that will be used to mitigate the adverse effects of the Project on heritage resources.

The 2020 heritage field program was focused on field work that will meet regulatory requirements for pre-construction archaeological impact assessments, and systematic data recovery at selected archaeological sites. The field season was initiated in May 2019 and ended in December 2019. The heritage activities that occurred during the reporting period focussed on annual report completion and preparations for the 2021 field season.

Heritage works includes approximately 80 archaeologists and Indigenous community representatives and the submittal of 22 archaeological interim reports, one archaeological annual permit report, and one archaeological final permit report to the BC Archaeology Branch and Indigenous communities in accordance with *Heritage Conservation Act* permit terms and conditions.

During the reporting period, heritage reviews of contract documents, contractor environmental plans and construction readiness plans, as well as field inspections, were performed to ensure compliance. No heritage chance finds were reported in this period. No new *Heritage Conservation Act* permits or permit amendments were received. The following reports were submitted to the Archaeology Branch: four AIA Interim Reports; two AIA Annual Reports; two single-year Permit Reports; and one Final Paleontology Report.

1.6.4 Agricultural Mitigation and Compensation Plan Framework

As part of the Site C Agricultural Mitigation and Compensation Plan, BC Hydro has established a $20 million BC Hydro Peace Agricultural Compensation Fund to support agricultural production and related economic activity in the Peace Region. The fund is governed by a regional decision-making board made up of representatives from five regional agricultural organizations, the Peace River Regional District, three agricultural producer members-at-large and one Peace River Valley agricultural producer. Northern Development Initiative Trust was selected as the fund administrator and is managing the investment of the funds. The first grant intake of $250,000 was held in fall 2019 and seven Peace Region agricultural projects received a total of $209,086 in funding. A second grant intake of $250,000 was held from December 1, 2019 to January 30, 2020 and nine Peace Region agricultural projects received approximately $190,000 in funding.

1.7 Labour, Employment and Training Initiatives and Building Capacity Initiatives

1.7.1 Labour

To date, unions that have participated in the construction of Site C are listed in Table 7 below.

Table 7 Participating Unions

Union
Construction Maintenance and Allied Workers (CMAW)
Christian Labour Association of Canada (CLAC), local 68
Canada West Construction Union (CWU)
Construction and Specialized workers Union (CSWU), local 1611
International Union of Operating Engineers (IUOE), local 115
Ironworkers, local 97
International Brotherhood of Electrical Workers (IBEW**)**
MoveUP, local 378
Pile Drivers 2402
The Boilermakers, lodge 359
The United Association of Journeymen & Apprentices of the Plumbing & Pipefitting Industry of the U.S. & Canada, local 170
Teamsters, local 213

In addition, ten unions affiliated with the BC Building Trades will be working on the installation of the turbines and generators.

The generating station and spillways contractor has signed a labour agreement for the generating station and spillways civil works with the IUOE Local 115, the CSWU Local 1611 and CMAW.

Further, the substation contractor has negotiated labour agreements with the IBEW for the electrical work on the Site C substation, and their civil subcontractor has been certified to the CMAW. The transmission contractor is performing transmission line work on the Project and is signatory to a labour agreement with the IBEW. The Teamsters have collective agreements with other contractors on the Project.

The labour approach for the Site C balance of plant contract will be for the contractor to retain the Construction Labour Relations Association to enter into an agreement, through negotiations, with the Bargaining Council of BC Building Trades Unions or another consortium of Building Trades Unions that covers an agreed set of labour requirements.

Labour Update on Scaled Back Activities at Dam Site due to COVID-19 Pandemic

Since March 18, 2020 BC Hydro has worked with contractors and their unions to scale back activities on site. BC Hydro has followed up with each union working on site to confirm its commitment to work with project contractors to ensure all workers that receive medical advice to self-isolate in camp are paid for that time. BC Hydro is providing updates to key project unions on site regarding information that is being shared with workers, the latest number of people in camp in self-isolation and the status of COVID-19 testing results.

The key unions that continue to work on advancing critical Project milestones include: CMAW Carpenters, CLAC Local 68, Ironworkers Local 97, the Millwrights Union, and the Teamsters union.

BC Hydro is working with contractors that are still advancing critical Project work to develop shift schedules to reduce the number of people traveling to and from site.

1.7.2 Employment

Contractors submit monthly workforce data electronically to BC Hydro. Table 8 presents the monthly number of construction contractors, non-construction contractors, engineers, and Project team workers for this period. As with any construction project, the number of workers — and the proportion from any particular location — will vary month-to-month and also reflects the seasonal nature of construction work.

Table 8 Site C Jobs Snapshot Reporting Period – January 2020 to March 2020

Month	Number of B.C. Primary Residents[11]	Number of Total Workers[12]
January 2020	3,198	4,359
February 2020	3,400	4,785
March 2020	3,454	4,896

In March 2020, 71 per cent (3,454 workers) of the workforce was made up of residents of British Columbia, while 18 per cent (751 workers) of the workforce lived in the Peace River Regional District. The on-site contractor workforce number also includes 11 per cent women (461 workers) and 205 workers who are working for various contractors as apprentice carpenters, welders, electricians, millwrights, ironworkers, mechanics, boilermakers and heavy equipment operators.

Workforce numbers are calculated as a total employment number in each month, therefore March 2020 numbers do not yet reflect the results of the March 18, 2020 work scale down at the dam site. This impact will be reflected in the April 2020 workforce numbers.

1.7.3 Training and Capacity Building Initiatives

In September 2017, the Contractors Labour Committee agreed to establish an Indigenous labour subcommittee. The purpose of the subcommittee is to support Indigenous training, labour and employment on Site C through communication, consultation, coordination and cooperation among contractors on the Project.

11 Employment numbers provided by Site C contractors and consultants are subject to revision. Data not received by the Project deadline may not be included in the above numbers. Employment numbers are direct only and do not capture indirect or induced employment

12 Total workers include:

- Construction and non-construction contractors total workforce employment number performing work on Site C dam site, transmission corridor, reservoir clearing area, public roadwork, worker accommodation and services.
- Engineers and Project team that is comprised of both on-site and off-site workers.
- The Project team, which includes, BC Hydro construction management and other offsite Site C Project staff. An estimate is provided where possible if primary residence is not given.

The committee meets quarterly, or on an as-needed basis. All major Site C construction contractors currently attend this meeting.

The committee has developed a number of initiatives, such as:

- Established a protocol for distribution of Indigenous candidate resumes;
- Developed and implemented the Indigenous Employment and Information Day;
- Participated in the development of the BC Hydro and Northern Lights College pre-carpentry skills pilot program on the Site C Project;
- Reviewed and assisted contractors in contract reporting requirements;
- Discussed communication of site-wide policies;
- Shared regional cultural events with Project contractors;
- Shared BC Hydro's Indigenous Employment and Business Development employment and training initiatives;
- Reviewed contractors' best practices;
- Shared success stories to assist in generating opportunities; and
- Reviewed Project status and upcoming labour requirements for contractors and how to meet labour demands.

BC Hydro has included apprentice targets in the generating station and spillways civil works contract, the transmission lines and the substation contracts, and the Highway 29 work to be procured by BC Hydro.

The generating station and spillways contractor has also committed to providing opportunities for apprentices. An apprentice target will also be included in the balance of plant contract, currently in procurement.

The main civil works contractor continues to report apprentices in the heavy equipment operator and labourer trades through a new training program in

partnership with Christian Labour Association of Canada (CLAC) and the Industry Training Authority.

In August 2013, Northern Lights College Foundation started distributing the BC Hydro Trades and Skilled Training Bursary Awards. As of March 31, 2020, a total of 263 students had received bursaries, including 114 Indigenous students who have benefitted from the bursary in programs such as electrical, welding, millwright, cooking, social work, and many others. The bursary ended in October 2018, with remaining amounts still available. BC Hydro has worked with the Northern Lights College Foundation to extend the bursary and reserve the remaining bursary amounts for trades programs directly needed for Project work. Part of this agreement was to set aside funds for the BC Hydro and Northern Lights College pre-carpentry skills pilot program for Site C. This will be reviewed in October 2020.

BC Hydro continues to work with local employment agencies to ensure that as job opportunities become available, they are posted on the WorkBC website as well as on the Fort St. John Employment Connections website. With the announcement of the Louisiana Pacific Peace Valley Oriented Strand Board mill permanent curtailment, BC Hydro is working with Ministry of Forests, Lands, Natural Resource Operations and Rural Development and their worker transition and worker displacement initiatives to assist the local community in responding to this closure. BC Hydro’s contractors continue to work with the local community to access available skilled and qualified workers impacted by the downturn in the forestry sector, including participating in local job fairs.

In March 2020, Site C contractors reported 751 workers on site from the Peace River Regional District. This is a total of 18 per cent of the construction and non-construction contractors’ workforce.

Contractor Indigenous Employment and Training information session

In February 2020, BC Hydro hosted the fifth Contractor Indigenous Employment and Training information session in Fort St. John. The purpose of these meetings are to assist in building relationships between employment and training professionals from the Indigenous communities and key Site C contractors.

Site C contractors have noted that certain trades will be in high demand over the next two to three years during peak Project construction periods. As such, major on-site contractors are exploring opportunities for apprentice and other training to take place on-site. BC Hydro is working with Northern Lights College and Site C contractors to develop three on-site pilot programs.

All three pilot programs have been postponed due to the COVID-19 pandemic. BC Hydro and Northern Lights College will continue with the recruitment process on an interim basis. BC Hydro will continue to monitor the situation for an appropriate time to proceed with the programs. The following describes the three pilot programs:

- **Fish Monitoring Program**

  This pilot program was scheduled to commence in late spring 2020. The program includes workforce training certification in preparation for employment opportunities. The program also includes electrofishing and swift water training.

- **Pre-Carpentry Skills Pilot Program at Site C**

  This pilot program was successfully delivered in April 2019 by BC Hydro and Northern Lights College and was planned to be delivered again in spring 2020. In 2019, seven Indigenous students from this program were hired for Project work by contractors on the Project, with one student entering an apprentice program to become a journey person carpenter. Funding for this program was also provided through the North East Native Advancing Society and donations from the Construction Maintenance and Allied Workers. The intent of this

program is to provide an overview of the skills required for the carpentry trade (essential skills training), general employment knowledge (employment readiness), overview of job requirements for carpenters, knowledge of B.C.'s apprenticeship system, and Site C Project specific knowledge.

- **Pre-Heavy Equipment Operator Skills Pilot Program at Site C**

  This course focuses on preparing individuals who have prior heavy equipment operator training for employment opportunities on BC Hydro's Site C Project with its contractors and was planned on being delivered in spring 2020. Funding for this program was also provided through the North East Native Advancing Society and donations from the Christian Labour Association of Canada (CLAC), local 68.

  Both the pre-heavy equipment operator and carpentry programs were 14-day programs designed for local new workers or workers new to the trade with preference given to local Indigenous candidates. The courses were to be partly run at the worker accommodation camp and the 14 days were intended to reflect a typical Site C schedule.

1.8 Community Engagement and Communication

1.8.1 Local Government Liaison

There are a number of Environmental Assessment Certificate conditions that are relevant to local communities in the vicinity of the Project. BC Hydro is implementing some of these conditions through community agreements offered to five local governments. Through these agreements and discussions, BC Hydro has, in some instances, agreed to additional measures to address concerns about local community impacts from construction and operation of the Project. On March 11, 2020, the quarterly Regional Community Liaison Meeting was held in Fort St. John where an update was provided on COVID-19 related activities. On March 22, 2020, a call was held with all Peace River Regional Board member to

discuss their concerns about COVID-19. Additionally, BC Hydro implemented daily update emails regarding actions taken to respond to the pandemic and launched a Site C COVID-19 website for public information. Further calls are being held in April 2020 to continue to engage with local governments and Indigenous Groups in partnership with Northern Health and Emergency Management BC.

BC Hydro has concluded four community agreements with respect to the Project: the District of Taylor (2013), the District of Chetwynd (2013), the City of Fort St. John (2016) and the District of Hudson's Hope (2017). BC Hydro and the City of Fort St. John established a Community Agreement Monitoring Committee to jointly oversee implementation of the community agreement. BC Hydro continues to work cooperatively with the City of Fort St. John, District of Hudson's Hope, District of Taylor and the District of Chetwynd to ensure implementation of their respective agreements. BC Hydro and the Peace Region River District met on March 10, 2020 to restart agreement negotiations.

The Regional Community Liaison Committee, which is comprised of local elected officials and local First Nations communities, met on March 11, 2020. Eight local governments and four local First Nations communities (McLeod Lake Indian Band, Doig River First Nations, Saulteau First Nations and Blueberry River First Nations) as well as the two MLAs for Peace River North and Peace River South, are invited to participate as committee members. Representatives from the Project's major contractors may also attend the meetings as invited guests.

1.8.2 Business Liaison and Outreach

BC Hydro continued to implement its business construction liaison and outreach by attending local chamber of commerce meetings in Fort St. John and Chetwynd. The Project team sent out ten notifications between January and March 2020, which includes three notifications in this reporting period to the Site C business directory.

1.8.3 Community Relations and Construction Communications

BC Hydro continued to implement its construction communications program throughout 2019. The program includes updating and maintaining the Project website (www.sitecproject.com) with current information, and photos and videos of construction activities, and providing information to local and regional stakeholders as required.

Between January and March 2020, the Site C community relations team hosted two external site tours, showing key stakeholders, local government officials and Indigenous Groups how the Project is progressing.

Construction Bulletins

Bi-weekly construction bulletins continued to be issued between January and March 2020. These bulletins are posted on the Project website and sent by email to the web-subscriber list. There were six construction bulletins and one quarterly construction notification letter issued and distributed during the reporting period.

Public Enquiries

In total, BC Hydro received 487 public enquiries between January 1, 2020 and March 31, 2020. The majority of these enquiries continued to reference business and job opportunities, with limited construction impact concerns from local residents. Table 9 shows the breakdown of some of the most common enquiry types.

In total, BC Hydro has received more than 11,593 enquiries since August 2015.

Table 9 Public Enquiries Breakdown

Enquiry Type[13]	January 2020	February 2020	March 2020
Job Opportunities	114	88	66
Business Opportunities	56	33	32
General Information	14	8	13
Construction Impacts[14]	3	4	13
Other[15]	11	9	10
Total	**198**	**142**	**134**

1.8.4 Communications Activities

Based on a search using the media database Infomart, there were 110 stories referencing the Site C Project in B.C. news media between January 1, 2020 and March 31, 2020.

1.8.5 Housing Plan and Housing Monitoring and Follow-Up Program

BC Hydro and BC Housing Management Commission (BC Housing) signed a contribution agreement on July 19, 2016 related to the development, construction and operation of a building in Fort St. John comprised of 50 residential rental units. The agreement structured the financial contribution from BC Hydro to enable viable financial operation of the affordable housing units by BC Housing in the near-term and viable financial operation of all 50 units of affordable housing in the longer term.

BC Hydro completed a head lease with BC Housing in May 2019. Any suites not utilized by BC Hydro are available to BC Housing to offer for public rental. BC Hydro currently rents 25 units in the building. The remaining units are used by BC Housing for affordable housing or rented to the public.

13 This table is a sample of enquiry types and does not include all enquiry types received.

14 The nature of the construction impact inquiries is primarily air quality, noise and traffic conditions.

15 “Other” accounts for enquiries related to a variety of other topics, such recreation access near construction sites, property owner correspondence, or requests for site tours.

1.8.6 Labour and Training Plan

In accordance with an Environmental Assessment Certificate condition, a Labour and Training Plan was developed and submitted to the Environmental Assessment Office on June 5, 2015. This plan, as well as Environmental Assessment Certificate Condition 45, include reporting requirements to support educational institutions in planning their training programs to support potential workers in obtaining Project jobs in the future. This report was issued to the appropriate training institutions in the northeast region of B.C. in July 2016, July 2017, July 2018 and July 2019. The next report will be issued in summer/fall 2020.

1.8.7 Human Health

1.8.7.1 Health Care Services Plan and Emergency Service Plan

The Project health clinic is contracted by BC Hydro with Halfway River International SOS Medical Ltd., a partnership between Halfway River First Nation and International SOS. The clinic continues to operate in its permanent location within the Two Rivers Lodge and based on camp occupancy was staffed 24/7 during this period with a nurse practitioner and advanced care paramedics. BC Hydro and the clinic operator continue to liaise with the local health care community.

The clinic has been a key on-site resource in the response to COVID-19. In addition to providing their regular care, the Clinic evaluates all camp residents with potential COVID-19 symptoms in accordance with provincial guidance. If a worker is deemed to enter isolation, the Clinic supervises their health during isolation and monitors their symptoms until they can return to work. They have also advised and assisted in implementing appropriate social distancing and hygiene practices to prevent the spread of COVID-19 on-site.

The clinic provides workers with access to primary and preventative health care and work-related injury evaluation and treatment services and is currently open seven days a week, 24 hours a day. Since opening the health clinic, there have been a

total of 15,256 patient interactions. During the reporting period, there were 2,033 patient interactions, of which 322 were occupational and 1,119 non-occupational. Several preventive health themes were promoted to workers including: quitting smoking, extreme cold, mental health and handwashing and COVID-19 awareness.

1.8.8 Property Acquisitions

During the reporting period, BC Hydro completed acquisitions of property required for the Cache Creek East Highway Realignment and Hudson's Hope Shoreline Protection, continued the property acquisition process for the re-alignment of two further highway projects (Farrell Creek and Lynx Creek West), and commenced the acquisition process for Lynx Creek 27 East Highway segment.

1.8.9 Key Procurement and Contract Developments

1.8.10 Key Procurement

The procurement approach was approved by the board of directors in June 2012 for the construction of the Project. The procurement approach defined the scope of the major contracts and their delivery models, as summarized in Table 10 below.

Table 10 Major Project Contracts and Delivery Models

Component	Contract	Procurement Model	Anticipated Timing
Worker Accommodation	Worker accommodation and site services contract	Design-Build-Finance-Operate-Maintain	Completed
Earthworks	Site preparation contracts	Predominantly Design-Bid-Build	Completed
	Main civil works contract	Design-Bid-Build	Completed

Component	Contract	Procurement Model	Anticipated Timing
Reservoir/ Transmission Clearing	Multiple reservoir clearing contracts to be awarded over seven to eight years	Design-Bid-Build	Eleven contracts completed (two transmission line, nine reservoir) Five contract packages remain to be procured; final number will depend on the scope of each package.
Generating Station and Spillways	Turbines and Generators contract	Design-Build	Completed
	Generating Station and Spillways Civil Works contract	Design-Bid-Build	Completed
	Hydromechanical Equipment contract	Supply Contract	Completed
	Balance of Plant Equipment Supply	Supply Contracts	All ten major equipment supply contracts completed.
	Balance of Plant Contract	Design-Build/ Design-Bid-Build	Proponents have expressed their concerns on the COVID-19 pandemic. Special topic meetings with each of the proponents were held individually to discuss their concerns on the impacts of COVID-19. Financial submission will be delayed which will delay the contract award date past June 2020.

Component	Contract	Procurement Model	Anticipated Timing
Electrical and Transmission Infrastructure	Transmission Lines Construction contract	Design-Bid-Build	Completed
	Site C substation contract	Design-Bid-Build	Completed
	Peace Canyon Substation upgrade contract	Design-Build	Completed
Highway 29 Realignment	Cache Creek West 2018 and 2020 scope of work	Design-bid-Build	Completed
	Halfway River Bridge, Grade and Paving	Design-Bid-Build	Completed
	Cache Creek East Embankment	Design-Bid-Build	Completed
	Cache Creek East Grading, Paving and Bridge	Design-Bid-Build	July 2020
	Dry Creek Grading, Paving and Bridge	Design-Bid-Build	July 2020
	Farrell Creek Grading, Paving and Bridge	Design-Bid-Build	July 2020
	Lynx Creek West Grading, Paving and Bridge	Design-Bid-Build	August 2020
	Design Bid Build in coordination with B.C. Ministry of Transportation and Infrastructure with anticipated contracts being awarded from 2019 to 2022		

1.8.11 Major Construction Contracts Exceeding $50 Million

Since inception of the Project, nine major construction contracts have been awarded that exceed $50 million in value, as shown in Table 11.

All of the construction contracts have been procured and awarded as per the BC Hydro procurement policies.

Table 11 Major Project Contracts Awarded

Work Package	Contract Value at March 31, 2020[16] ($ million)	Contract Execution Date
Site Preparation: North Bank	60	July 2015
Worker Accommodation	528	September 2015
Main Civil Works	2,438	December 2015
Turbines and Generators	464	March 2016
Transmission and Clearing	74	October 2016
Generating Station and Spillways Civil Works	1,657	March 2018
Hydromechanical Equipment	69	April 2018
Transmission Line Construction	115	May 2018
Highway 29	172	October 2019

1.8.12 Contracts Exceeding $10 Million

For open contracts procured and awarded in excess of $10 million, refer to Appendix C.

1.8.13 Contract Management

1.8.13.1 Material Changes to the Major Contracts

The main civil works contract is a unit price contract and as such variations in quantities and design are expected over the term of the contract. Since contract award in December 2015, the main civil works contract value has increased by $690 million to reflect approved changes to March 31, 2020.

[16] Contract value reflects the current value including executed change orders to the end of the reporting period.

A contract amendment was executed on March 6, 2020 to the main civil works contract that is retroactive to December 23, 2019 resulting in an increase in the contract value of up to $332 million over the duration of the contract, including investments in equipment to reduce the schedule risk for dam construction and a series of performance-based at-risk incentives for the contractor with the objective of maintaining schedule for diversion and first power.

1.8.13.2 Contingency and Project Reserve Draws

As a result of the change in timing for river diversion and other factors including an increase in direct and indirect costs, in 2018 BC Hydro revised the Project budget to $10.7 billion, which was approved by the provincial Treasury Board in January 2018 and the BC Hydro board of directors in February 2018. This revised budget includes an $858.1 million contingency allowance and a $708 million reserve that is subject to Treasury Board's discretion.

The Project has a risk management plan that establishes the risk management framework for the Project and describes specific processes, procedures, organization, tools and systems that guide and support effective risk management. Utilizing this plan, risks are identified, assessed and managed on a continuous basis. The output of the risk management process is documented in the risk register. The risk register is utilized as an input into Project forecasts and cost risk analyses are conducted periodically to inform contingency requirements. Cost risk analyses are completed regularly and based on these analyses, subject to the approval of the Treasury Board, BC Hydro expects to request a draw on the Project reserve in fall 2020, as needed. The Project is facing incremental cost pressures due to the COVID-19 pandemic and the need to implement enhancements to the foundations of the structures on the right bank. As the evolution of the COVID-19 pandemic is uncertain and the date of resolution is unknown, and a design solution for the right bank enhancements has not yet been developed, the cost impacts of both of these material issues cannot be accurately calculated at this time.

Refer to Appendix E for more detailed information regarding contingency and Project reserve draws.

1.9 Plans During Next Six Months

The Project is experiencing material schedule impacts from the COVID-19 pandemic and these impacts will affect the Project completion dates. As the evolution of the COVID-19 pandemic is uncertain and the date of resolution is unknown, the impact to the key milestone dates cannot be estimated. Various cost and schedule impact scenarios continue to be assessed. The Project team is working on a recovery plan on how to restart work fronts at the dam site that were shut down on March 18, 2020 due to the COVID-19 pandemic. Reaching river diversion in September 2020 remains on track, but the milestones for first power and the Project in-service date will be impacted, depending on the duration of the COVID-19 restrictions.

Table 12 below presents the key milestones for activities planned during the next six months.

Table 12 Key Milestones for Activities Planned during the Next Six Months (April 2020 to September 2020)

Milestone	Performance Measurement Baseline	Plan Date (Control Date[17])	Forecast[18]	Status[19] (Measured by Month)
Generating Station and Spillways				
Work Area W4 access to generating station and spillways	June 2020	June 2020	June 2020	On track
Powerhouse Bridge Cranes Commissioned and Ready for Travel Load Tests	December 2019	June 2020	July 2020	At risk
Unit 1 - Unit bay superstructure complete and powerhouse bridge crane ready	June 2020	June 2020	July 2020	At risk
Intake operating gates and intake maintenance gates supplied	August 2020	August 2020	August 2020	On track
Unit 2 - Unit bay superstructure complete and powerhouse bridge crane ready	September 2020	September 2020	September 2020	On track
Highways				
Contract Awarded - Grading, paving, & bridge Lynx Creek West	May 2019	August 2020	August 2020	On track
Construction Road Finish Lynx Creek East	August 2020	December 2022	August 2020	On track
Contract Awarded – Hudson's Hope berm	January 2021	May 2020	August 2020	At risk
Main Civil Works				
Diversion Tunnel No. 1 & No. 2 Construction Complete	November 2019	June 2020	June 2020[20]	On track
(M3.1) Diversion works stage 2 works complete, excluding portions to be completed in M3.2	March 2020	March 2020	March 2020[20]	Complete
Diversion inlet portal & channel complete	March 2020	May 2020	May 2020[20]	On track
Diversion outlet portal & channel complete	April 2020	June 2020	June 2020[20]	On track
All diversion stage 2 works complete	June 2020	July 2020	July 2020[20]	On track

17 Control date reflects plan, adjusted for approved changes to milestone dates.

18 As at March 31, 2020.

19 The forecast for key milestone dates may change depending on how long work activities at the dam site are scaled back. The status reflects forecast dates as of March 31, 2020.

20 In response to some delays with the excavation of the diversion tunnels, the construction activities required to complete the diversion tunnels have been re-sequenced, by advancing some activities and delaying others, to optimize the schedule. This optimized schedule still achieves the key schedule milestones associated with river diversion in fall 2020.

Milestone	Performance Measurement Baseline	Plan Date (Control Date[17])	Forecast[18]	Status[19] (Measured by Month)
Stage 2 upstream cofferdam abutments placement to elevation 433.9 metres complete	August 2020	August 2020	August 2020	On track
Diversion started	September 2020	September 2020	September 2020	On track
Turbines and Generators				
Voith 1st component installed (draft tube liner)	July 2020	July 2020	September 2020	At risk
Balance of Plant				
Contract Award – Balance of plant	June 2020	June 2020	June 2020	On track
Reservoir				
Contract Awarded – Halfway River Drainage	September 2020	September 2020	September 2020	On track
Reservoir Prepared for Diversion	March 2020	March 2020	March 2020	Complete

1.10 Impacts on Other BC Hydro Operations

In the reporting period, the operation of system storage, for GM Shrum and Williston Reservoir, continues to be planned to meet flow releases necessary for Site C construction and river diversion.

1.11 Site Photographs

Refer to Appendix A for Site Construction photographs.

2 Project Schedule

2.1 Project In-Service Dates

As filed with the British Columbia Utilities Commission Inquiry with respect to Site C on October 4, 2017, BC Hydro identified that the river diversion milestone was required to move from 2019 to 2020. This change did not impact the overall in-service dates.

In March 2020, work activities were modified and scaled back for certain construction activities at the Project dam site to focus only on essential work and critical milestones as well as off dam site activities. The Project prioritized work

required to achieve river diversion in fall 2020. Reaching river diversion in September 2020 remains on track, but the milestones for first power and the Project in-service date will be impacted, depending on the duration of the COVID-19 restrictions, as shown in Table 13 below.

Table 13 In-Service Dates

Description	Final Investment Decision In-Service	Status
5L5 500 kV Transmission Line	October 2020	On track
Site C substation	November 2020	On track
5L6 500 kV transmission line	July 2023	On track
Unit 1 (first power)	December 2023	At risk
Unit 2	February 2024	At risk
Unit 3	May 2024	At risk
Unit 4	July 2024	At risk
Unit 5	September 2024	At risk
Unit 6	November 2024	At risk

2.2 Project Governance, Costs and Financing, and Risk

2.2.1 Project Governance

In December 2017, the provincial government announced their approval to continue with construction of the Site C Project. The approval to proceed included increased external and internal oversight of Project performance. Measures to improve Project governance in the reporting period include:

- EY Canada continued to provide independent oversight for the Project including budget oversight, schedule evaluation and risk assessment analysis. BC Hydro and EY Canada are working collaboratively on enhancements to risk analysis and reporting;
- BC Hydro completed one cost and schedule risk analysis during the reporting period. As part of these analyses, BC Hydro worked collaboratively with EY Canada and implemented identified enhancements;

- An Independent Construction Advisor was retained in summer 2019 to provide advice and opinions on construction planning by major contractors at the Dam Site. The Independent Construction Advisor provided an update to the Project Assurance Board in February 2020;
- The Technical Advisory Board met several times during the reporting period. These meetings consisted of conference calls, workshops, tours and in person meetings; and
- A Site C Emergency Operations Centre was established in March 2020 to respond to the COVID-19 pandemic and coordinate Project activities.

2.2.2 Project Budget Summary

As a result of the change in timing for river diversion and other factors including an increase in direct and indirect costs, BC Hydro presented a revised cost estimate of $10.7 billion which was approved by the board of directors in February 2018. Since the current Project budget was approved in February 2018, significant financial impacts have been realized in the following areas:

- The COVID-19 pandemic escalated significantly in British Columbia and has had a material impact on the Project. The Project is experiencing material schedule impacts from the pandemic and these impacts will affect the Project completion dates. As the evolution of the COVID-19 pandemic is uncertain and the date of resolution is unknown, the impact to the Project cost cannot be estimated at this time. Various cost and schedule impact scenarios continue to be assessed;
- Based on ongoing geological investigations and the monitoring of instrumentation during construction, additional scope and design enhancements have been added to the Project to further enhance the foundations of the structures on the right bank including the powerhouse, spillways and earthfill dam buttress. The impact to the Project cost cannot be

estimated at this time. Various cost and schedule impact scenarios continue to be assessed;

- A contract amendment was executed on March 6, 2020 to the main civil works contract that is retroactive to December 23, 2019 resulting in an increase in the contract value of up to $332 million over the duration of the contract, including investments in equipment to reduce the schedule risk for dam construction and a series of performance-based at-risk incentives for the contractor with the objective of maintaining schedule for diversion and first power;
- Additional labour resource requirements, the expansion and increased utilization of the on-site worker accommodations, as well as estimated site reclamation costs;
- First Nations treaty infringement claims and an injunction application which affected highways, transmission, and reservoir clearing work and impacted the planned sequencing of certain construction activities; and
- Costs associated with reservoir clearing, transmission line construction and highway re-alignment work are higher due to changes in scope as the designs have progressed.

Table 14 below presents the overall Project budget, based on the Project budget approved in February 2018, represented in nominal dollars.

Table 14 Current Project Budget

Description	(Nominal $ million)
Dam, Power Facilities, and Associated Structures	4,548
Offsite Works, Management and Services	1,845
Total Direct Construction Cost	**6,393**
Indirect Costs	1,456
Total Construction and Development Cost	**7,849**
Contingency	858
Interest During Construction	1,285
Project Budget, before Treasury Board Reserve	**9,992**
Treasury Board Reserve	708
Total Project Budget	**10,700**

2.3 Project Expenditure Summary

Table 15 provides a summary of the budget for the total Project, the current forecast, total Project cost and the variance between the two. It also presents the cumulative budget amount planned to March 31, 2020 compared to the cumulative actual costs incurred to March 31, 2020 and the variance between the two. The COVID-19 pandemic has had a material impact on the Project. The Project's first power and in-service date will be impacted, and costs are also under pressure due to the requirement to implement enhancements to the foundations of the structures on the right bank. As the evolution of the COVID-19 pandemic is uncertain and the date of resolution is unknown, cost and schedule impact scenarios continue to be assessed and refined. At this time, the Project forecast cannot be determined.

Table 15 Total Project Expenditure Budget Compared to Forecast and Life to Date – Budget Compared to Actual Expenditures to March 31, 2020 ($ million Nominal)

	Total Project			Life to Date, to March 31, 2020		
Description	**Budget**	**Forecast**	**Variance**	**Budget**	**Actual Expenditures**	**Variance**
Project	9,992	TBD	0	4,724	5,127	(403)
Treasury Board Reserve	708	TBD	0	0	0	0
Total	**10,700**	**TBD**	**0**	**4,724**	**5,127**	**(403)**

Table 16 below provides a summary of the 2019/20 to 2021/22 Service Plan Project expenditures for Fiscal 2020 to March 31, 2020, the actual Project expenditures for Fiscal 2020 to March 31, 2020 and the related variance.

Table 16 Actual Fiscal 2020 Project Expenditures Compared to 2019/20 to 2021/22 Service Plan ($ million Nominal)

Description	2019/20 to 2021/22 Service Plan March 2020 YTD	Actual Expenditures March 2020 YTD	Variance
Project	1,549	1,636	(87)
Treasury Board Reserve	-	-	-
Total	**1,549**	**1,636**	**(87)**

Details of the variances between actual and plan are in Appendix E.

2.4 Internal Project Financing versus External Borrowings to Date

To date, all Project funding has been from internal borrowings and there has been no Site C Project specific debt issued. As part of BC Hydro's debt management strategy, BC Hydro's exposure to variable debt is managed within a board-approved range of 5 per cent to 25 per cent and a target of 15 per cent. In addition, since fiscal 2017, BC Hydro has hedged $10.0 billion of its future forecast long-term debt issuances through the use of derivative contracts to lock in interest rates. As at March 31, 2020, $5.0 billion of hedges remained outstanding to hedge future debt

issuances, hedging approximately 75 per cent of BC Hydro's forecast total borrowing requirements out to and including fiscal 2025.

2.5 Material Project Risks

Material Project risks are identified and reviewed on an ongoing basis. As the Project progresses through implementation phase, the material Project risks will evolve to reflect the current risks facing the Project. The following list of material Project risks does not include risks that are subject to confidentiality obligations or solicitor client privilege, or that disclose commercially sensitive information relating to matters that are currently outstanding, including procurements and negotiations that are in progress at the time of this report, the disclosure of which would be harmful to BC Hydro's commercial interests.

Refer to Table 17 below for a list of the material Project risks.

Table 17 Material Project Risks

Risk Description	Impact and Response Plan Summary
Risk that COVID-19 event impacts continuation of construction activities at site or in Vancouver	**Impact**: BC Hydro and contractors do not have access to required labour for daily construction and Project Management activities. **Response**: Decreased number of camp occupants to reduce COVID-19 risk; screen workers before travel to site and health checks at site before entry; provision of information to camp occupants; implementation of processes with contractors; coordination with BC Hydro COVID-19 response; implementation of mitigation measures with worker accommodation contractor (e.g. additional deep cleaning, close shared areas, no cafeteria self-serve stations, isolation wings); and put in place BC Hydro project & Contractor protocols/plans to protect workers exposure (e.g. extended work rotations, reduce in/out traffic, social distancing, travel restrictions, vehicle cleaning and working from home).
Risk that the Project cannot attract and retain sufficient skilled workers.	**Impact**: Contractors may not be able to adequately source, supply, attract, and retain sufficient project labour due to workforce demographics, increased competition for labour from other major projects, the requirement for specialized workers, and the effects of COVID-19. This may result in potential impacts to schedule, safety, productivity and cost. **Response**: Contractors provide labour sourcing and supply plans, provide advance notice of foreign workers, and participate in local job fairs. BC Hydro encourages and facilitates capacity building initiatives and monitors employee turnover rates and labour conditions on other projects.

Risk Description	Impact and Response Plan Summary
Risk of Highway 29 costs exceeding the approved budget.	**Impact:** Cost increases due to progression of detailed design, geotechnical conditions and direct award cost pressure. **Response**: Conduct value engineering and constructability reviews to optimize designs, use competitive tendering on Halfway River, Cache Creek, Farrell Creek and Lynx Creek West.
Risk of additional work to meet approach channel, powerhouse, & spillway roller-compacted concrete buttress requirements	**Impact:** Increased costs for investigation and design changes. **Response**: Finalize engineering investigations and analysis; complete right bank foundation enhancements design evaluation.
Risk that dam or approach channel is not completed on time for reservoir inundation.	**Impact:** Schedule delay/impact missing inundation seasonal window. **Response**: Closely monitor contractors' progress to minimize impacts to seasonal work and the inundation milestone; include schedule lag time for minor delays; manage work interfaces between contractors.
Risk of river diversion system delay if contractor productivity does not meet plan and/or differing geotechnical conditions.	**Impact**: Diversion delay could cause the schedule to slip by a year and increase costs. **Response**: BC Hydro closely monitors the development of design and construction plans, and labour and equipment productivity for critical construction activities (tunnel excavation/linings, inlet/outlet portals, and gates and cofferdam); provision of performance incentives for achievement of milestone dates.
Risk that Hydro's borrowing costs for the Project are higher than budgeted.	**Impact:** Rising interest rates increase the Project's interest costs above the amount budgeted. **Response**: BC Hydro has hedged interest rates on approximately 75 per cent of future debt placements through Fiscal 2025 to reduce the potential impact of rising interest rates.
Risk of contractor defaulting on their contract during construction	**Impact:** Bankruptcy of contractor or withdrawal from Project, resulting in Project delays and cost increases. **Response**: Robust capacity evaluation during procurement; step in rights in Contracts; performance security; monitor creditworthiness of parent companies who have provided guarantees.
Risk that worker accommodation is not sufficient	**Impact:** No accommodation for contractor workers (above allowed contract quota) impacting number of workers to complete construction work; increased Project cost for hotels if exceed camp capacity. **Response**: Continuous reforecasting of camp demand; utilize hotels for short-term periods when exceed camp capacity.

Risk Description	Impact and Response Plan Summary
Risk of contractor labour rate increases in excess of budgeted amount.	**Impact:** BC Hydro has included provisions in major contracts that allow for labour escalation to a prescribed amount, as well as a cost/savings sharing formula based on general industry rates above or below the prescribed amount. Increased pressure on the labour market would likely drive labour wage rates higher, potentially resulting in general industry increases beyond the prescribed amounts. **Response**: BC Hydro has defined contract labour escalation formulas in all major contracts.
Risk of a safety incident resulting in fatality or disabling injury	**Impact:** Serious worker injury or fatality; Project delays and associated costs. **Response**: Continue with BC Hydro and contractor safety steering committee to address shared safety issues and opportunities; BC Hydro and contractors have implemented safety cultural leadership training; increase BC Hydro executive involvement and engagement with site safety leadership; regularly hold on site safety conferences; contractor to bring in senior safety manager to prepare safety improvement plan for BC Hydro review; continue to include safety in BC Hydro and contractor on boarding orientations; and continue to promote a strong safety culture.
Risk of additional expenditures required for engineering support for the Project.	**Impact:** Exceed budget due to work required for as found site conditions, complete designs, and support schedule and construction activities; Insufficient resources to complete, manage and/or oversee engineering work. **Response**: Optimize BC Hydro resources; optimize work front team structure and minimize duplication of activities. Work with contractors to increase their quality control staffing.
Risk that spillway costs increase materially due to design changes.	**Impact:** Increased quantities result in higher construction costs. **Response**: Issue revised drawings to the contractor. Meet with the contractor to plan work so that construction cost increases are minimized.

Risk that Indigenous groups do not support the Project.	**Impact:** Indigenous groups file legal challenges (e.g. injunction applications) or engage in protest actions that could delay or stop the Project work and/or increase costs. **Response**: Project team to continue to engage and consult with First Nations and ensure commitments to First Nations are met or exceeded; fully support the development of legal response documents; follow court order requirements, if applicable; continue to negotiate Impact Benefit Agreements.
Risk that reservoir clearing costs are higher than budget.	**Impact:** Increased cost. **Response**: Review scope, modify approach, negotiate pricing, provide sufficient time to negotiate, work with Indigenous Relations on procurement of clearing services; develop alternative procurement options if planned procurements are not feasible.
Risk of the stage 2 cofferdam overtopping or erosion.	**Impact:** Damage to upstream and downstream cofferdams; uncontrolled river flow; flooding and damage to dam and powerhouse while under construction. **Response**: Clear reservoir area before river diversion and install debris structures; utilize Williston reservoir to provide water storage; complete river flow forecasting and manage water.
Risk of insufficient aggregate supply to meet demand on dam site.	**Impact:** Decreased productivity, schedule delays and increased cost that could impact multiple contracts. Aggregate supply required for concrete production (roller-compacted concrete, cast-in-place concrete/conventional vibrated concrete and shotcrete) and dam (general fill, filter materials, drain material, and riprap). **Response**: Increase aggregate stockpiles; work with contractors to minimize waste and maximize aggregate production; release BC Hydro on-site contingency aggregate excavation sites and seek out additional aggregate on-site sources; procure off-site and haul in additional aggregate.
Risk that the river has been diverted but the Stage 2 Cofferdam is not completed on time.	**Impact:** Unable to release restrictions upstream; overtopping of the cofferdam; construction delays; BC Hydro system (GM Shrum generation, etc.) impacts. **Response**: Contractor performance incentives in place to meet milestone dates; contractor increases work force; BC Hydro and contractor evaluate schedule and optimize activities.

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Site C Clean Energy Project

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Appendix A

Site Photographs

Figure A-1 A Concrete Placement Takes Place at the Intake Area of the Powerhouse (January 2020)

Figure A-2 Penstock Construction of Units 1, 2 and 3 (January 2020)

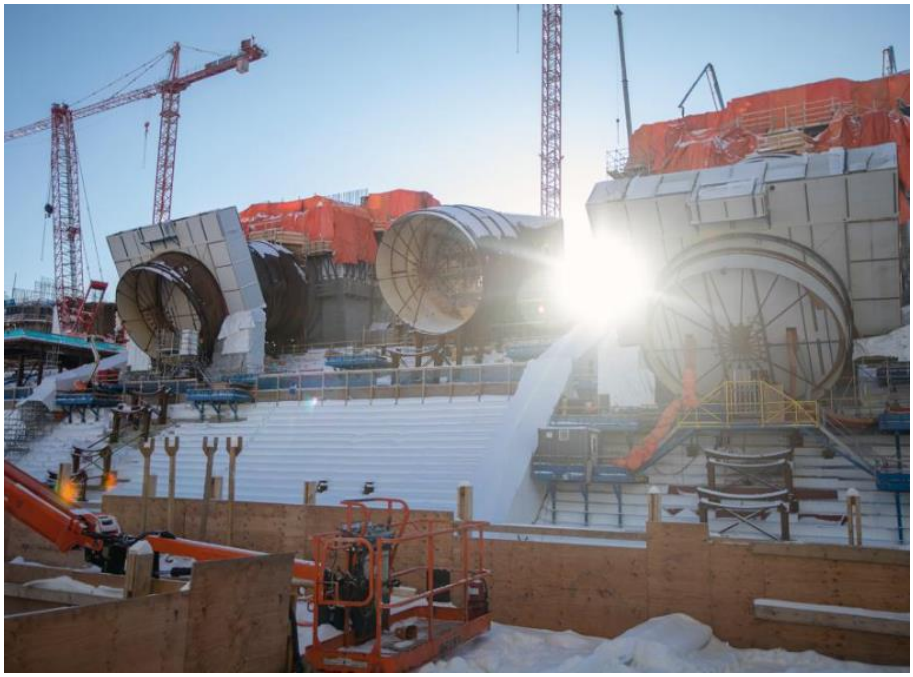

Figure A-3 **Piles are being Installed Across the Moberly River to Catch Floating Debris during River Diversion. Debris Booms will also be Installed Across the Moberly River, as well as the Peace River (February 2020)**

Figure A-4 **The Completed Inlet Structure for Diversion Tunnel No. 2 Stands 30.5 metres, or nearly 10 Stories High (February 2020)**

Figure A-5 **Arial View of the Diversion Tunnel Inlet Portals. The Tower Structures House the Mechanical Gates Required to Control Water Flows into the Tunnels (February 2020)**

Figure A-6 **Arial View of the Diversion Tunnel Outlet Portals and the Temporary Fish Passage Facility under Construction (February 2020)**

Figure A-7 Dam Core Trench Excavation on the North Bank is Nearing Completion (February 2020)

Figure A-8 Preparing the Pile Extensions for the Moberly River Debris Boom Structures (February 2020)

Figure A-9 **Moberly River Piles are Cut to Final Elevation, Filled with Concrete and Tarped to Maintain Adequate Temperature during the Curing Process (February 2020)**

Figure A-10 **An Aerial View of the Moberly River Pile Structure under Construction. This Structure, in Combination with a Debris Boom, will be Used to Capture Debris Floating in the River (February 2020)**

Figure A-11 **Construction of Cache Creek East Embankment, as Part of Highway 29 Realignment (March 2020)**

Figure A-12 **An Expansion of the Site C Worker Accommodation Lodge is Underway. These Wooden Cribs are Installed to Prepare for the 450-Bed Camp Expansion. The Existing Lodge is in the Background (March 2020)**

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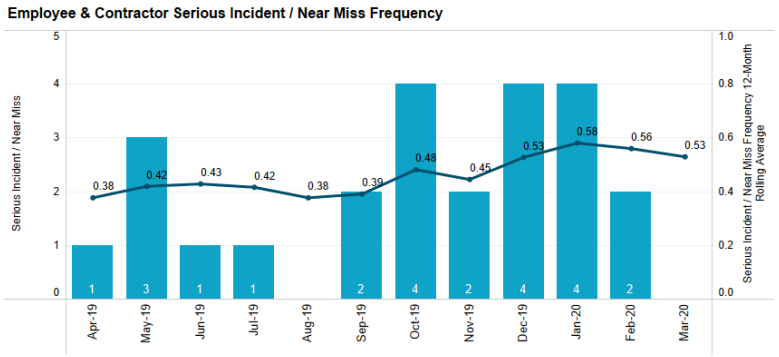
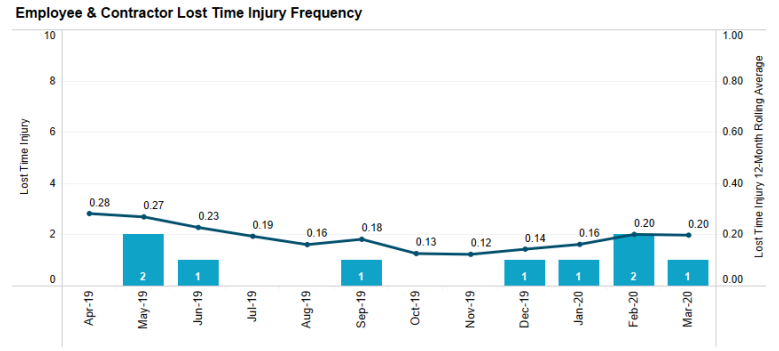
Appendix B

Safety and Security

Figure B-1 below provides information on employee and contractor serious incidents/near miss frequency, lost time injury frequency and all-injury frequency from January 1, 2020 to March 31, 2020.

Figure B-1 Employee and Contractor Serious Incidents/Near Miss Frequency, Lost Time Injury Frequency and All-injury Frequency





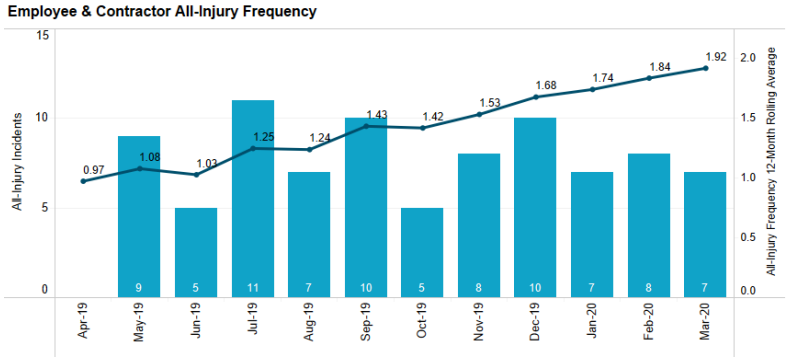


Table B-1 lists the safety regulatory inspections and orders received from January 2020 to March 2020.

Table B-1 Safety Regulatory Inspections and Orders

WorkSafeBC

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #1: WorkSafeBC conducted an inspection as a result of an incident that presented a high risk of serious injury to a worker. The order cited in this report is to address items, noted at the workplace that need attention prior to conducting more pressure testing work activities the contractor right bank shop location. The work practices reviewed on location to pressure test the water pipe fabrication and assembly of the fishway water conveyance system equipment did not include restraint of the mechanical plug components prior to and/or during the performance of the pressure test work.			
Low Risk	Restraining devices	**Order #1 – OHS 12.15(b)**: Effective means of restraint must be used if unplanned movement of an object or component could endanger a worker.	January 3, 2020
Inspection #2: WorkSafeBC contacted the contractor via telephone as a result of a reported incident that presented a risk of an injury to a worker. The incident occurred during the fueling operations at the left bank office fuel island. The worker stepped off an approximately 6-inch to 8-inch platform onto a snow-covered area. Minor injury was reported by the contractor.			
Low Risk	Slipping and tripping hazards	**Order #1 - OSH4.39(1):** Contractor failed to maintain in a state of good repair and kept free of slipping and tripping hazards on floors, platforms, ramps, stairs and walkways that are available for workers to use.	January 9, 2020
Inspection #3: WorkSafeBC conducted an inspection on the concrete formwork activities taking place at the time. The inspection was also conducted as part of the 2018-2020 Construction High Risk Strategy (CHRS). The focus of planned and target inspection opportunities will be in three main areas: 1. Health & Safety Responsibilities (planning and oversight) 2. Tools, Equipment and Processes (choosing the safest option) 3. Partnerships and Collaborations (messaging and communicating)			
		No Orders	January 11, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #4: WorkSafeBC conducted an inspection on the concrete formwork activities taking place at the Fishway, Inlet and Outlet Portal structures in the Left Bank Cofferdam area. The inspection was also conducted as part of the 2018-2020 Construction High Risk Strategy (CHRS). The focus of planned and target inspection opportunities will be in three main areas: 1. Health & Safety Responsibilities (planning and oversight) 2. Tools, Equipment and Processes (choosing the safest option) 3. Partnerships and Collaborations (messaging and communicating) Topics discussed with the prime contractor were in regard to concrete formwork at the worksite which include but not limited to: Concrete formwork, Engineering, and Inspection.			
		No Orders	January 11, 2020
Inspection #5: WorkSafeBC conducted an inspection as a result of an incident that involved an injury to a worker. This incident resulted from a shotcrete pump tunnel lining operation and change in direction of spray performed by the shotcrete pump operator. This change in direction inadvertently caused the spray to contact a worker on the other side of the hoarded in area at the tunnel entrance. Emergency response was initiated on location.			
		No Orders	January 11, 2020
Inspection #6: WorkSafeBC conducted an inspection at the left bank diversion tunnel construction area on the general work activities taking place at the time of inspection which included mobile equipment operation, formwork installation, concrete preparation/placement, and scaffold erection. Washroom facilities: a visual inspection of the temporary washroom facilities provided to the workers for use at the left bank diversion tunnel work location appeared to be generally maintained in a manner that ensured proper working order and clean sanitary conditions were observed. It was also noted that the washroom facilities are monitored and maintained during the extreme cold temperatures (-30 C to -45).			
		No Orders	January 16, 2020
Inspection #7: WorkSafeBC conducted an inspection on a pile driving operation. The subcontractor has been contracted to fabricate, construct and install the Moberly River debris pilings for a prime contractor.			
Low Risk	Respirators	**Order #1 - OHS8.32(b):** the contractor failed to ensure a worker was using an appropriate respirator where the worker might be exposed to welding fumes at the workplace.	January 20, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #8: WorkSafeBC contacted the contractor via telephone as a result of a reported incident that resulted in a non-occupational fatality of a worker.			
		No Orders	January 20, 2020
Inspection #9: WorkSafeBC conducted a site inspection of the gravity fishway area. Safety items discussed in the office included procedures and policies for working in close proximity to high voltage (25 kV) lines with heavy equipment such as a crane and excavator. A site visit was conducted at the fishway area to inspect the crane working close proximity of the 25 kV overhead lines, electrical distribution and cable management.			
		No Orders	February 11, 2020
Inspection #10: WorkSafeBC conducted a site inspection at the phase 2 crusher and material conveyance and included review of the employer's current lock out policies, workers training, instructions and overall implementation of written procedures to safety de-energize/lock out equipment prior to maintenance and/or cleaning activities.			
		No Orders	March 17, 2020
Inspection #11: WorkSafeBC conducted an inspection on the Workers Accommodation sewage treatment facilities. During the inspection the discussion included, exposure to blood borne pathogens and body fluids and human waste, mold, hazardous materials notices of projects, COVID-19 and safe access.			
High Risk	Exposure control Plan	**Order #1 - OHS6.34(1):** The contractor did not develop and implement an exposure control plan for blood borne pathogens and body fluids.	March 19, 2020
Low Risk	Vaccination	**Order #2 - OHS6.39(3):** The contractor failed to provide or offer at no cost to all workers subject to the hazard, vaccinations related to work at the camp and associated activities such as sewage treatment.	
High Risk	Access to work areas	**Order #3 - OHS4.32:** The contractor failed to provide a safe way of entering and leaving each place where work is performed, and a worker must not use another way, if the other way is hazardous.	

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #12: WorkSafeBC conducted an inspection on the general employer policy, procedures and training implemented at site. During the inspection, the health and safety items that were discussed but were not limited to: – Workplace violence program – Workplace conduct policy – Reporting Process – Investigation procedures – Orientation and training practices			
		No Orders	March 20, 2020

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Appendix C

Summary of Individual Contracts Exceeding $10 Million

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Appendix D

Project Progression

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Appendix E

Detailed Project Expenditure

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Appendix F

Workforce Overview

Table F-1 Current Site C Jobs Snapshot (July 2019 to September 2019)[21]

	Number of B.C. Workers and Total Workers	Construction and Non-construction Contractors[22] (including some Subcontractors). Excludes Work Performed outside of B.C. (e.g., Manufacturing)	Engineers and Project Team[23]	Total
January 2020	BC Workers	2,511	687	3,198
	Total Workers	3,613	746	4,359
February 2020	BC Workers	2,711	689	3,400
	Total Workers	4,029	756	4,785
March 2020	BC Workers	2,750	704	3,454
	Total Workers	4,123	773	4,896

Employment numbers provided by Site C contractors are subject to revision. Data not received by the project deadline may not be included in the above numbers.

BC Hydro has contracted companies for major contracts, such as main civil works, who have substantial global expertise. During the month of March 2020, there were six workers in a specialized position working for Site C construction and non-construction contractors, which were subject to the Labour Market Impact Assessment process under the Federal Temporary Foreign Worker Program. Additionally, there were 55 management and professionals working for Site C construction and non-construction contractors through the Federal International Mobility Program.

21 Employment numbers are direct only and do not capture indirect or induced employment.

22 Construction and non-construction contractors total workforce employment number includes work performed on the Site C dam site, transmission corridor, reservoir clearing area, public roadwork, worker accommodation and services.

23 Engineers and Project team are comprised of both on-site and off-site workers. The Project team includes BC Hydro construction management and other off-site Site C project staff. An estimate is provided where possible if primary residence is not given.

Table F-2 Preliminary Site C Apprentices Snapshot (January 2020 to March 2020)

Month	Number of Apprentices
January 2020	165
February 2020	210
March 2020	205

Data is subject to change based on revisions received from the contractors.

Table F-3 Current Site C Job Classification Groupings

Biologists and laboratory	Carpenters	Inspectors	Construction managers/ supervisors	Crane operators	Electricians	Engineers
Foresters	Health care workers	Heavy equipment operators	Housing staff	Heating, ventilation, and air conditioning	Kitchen staff	Labourers
Mechanics	Millwrights	Office staff	Pipefitters	Plumbers	Sheet metal workers	Truck drivers
Underground mining	Welders	Surveyors	Security guards	Boilermakers	Cement Masons	Crane Operators
Ironworkers						

Table F-4 Indigenous Inclusion Snapshot (January 2020 to March 2020)

Month	Number of Indigenous Workers
January 2020	335
February 2020	359
March 2020	353

The information shown has been provided by BC Hydro's on-site[24] construction and non-construction contractors and their subcontractors that have a contractual requirement to report on Indigenous inclusion in their workforce.

[24] On-site includes work performed on Site C dam site, transmission corridor, reservoir clearing area, public roadwork, worker accommodation and services.

Employees voluntarily self-declare their Indigenous status to their employer and there may be Indigenous employees that have chosen not to do so, therefore, the number of Indigenous employees may be higher than shown in the above table.

As with any construction project, the number of workers, and the proportion from any particular location, will vary month-to-month and reflects the seasonal nature of construction work. The number of workers will also vary as a contract's scope of work is completed by the contractor.

Women

In March 2020, there were 461 women working for Site C construction and non-construction contractors. The number of women was provided by on-Site Construction and non-construction contractors and engineers that have a contractual requirement to report on the number of women in their workforce.

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Appendix G

Site Construction Schedule

This following Site C Construction schedule is accurate as of February 2020. Due to the global COVID-19 pandemic, some activities will be impacted.